



THE MODERN HOSPITAL

*A Monthly Journal Devoted to the Building, Equipment, and
Administration of Hospitals, Sanatoriums, and Allied Institutions,
and to Their Medical, Surgical and Nursing Services*

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SOUTHERN BAPTISTS CONSTRUCT WELL PLANNED SANATORIUM

PART ONE

FROM THE ADMINISTRATIVE STANDPOINT

By H. F. VERMILLION, M. D., SUPERINTENDENT, SOUTHERN BAPTISTS SANATORIUM, EL PASO, TEXAS.

THE property of the Southern Baptist Sanatorium consists of 143 acres of land valued at \$25,000, a water plant having an elevated storage tank connected with the city plant, and an administration building erected just before the war at a cost of \$65,000.

This property was given by the people of El Paso, in the hope that it would be used as a great plant for the healing of stricken humanity. The Home Mission Board has title to the property and is entrusted with founding and directing the sanatorium. The building has been remodeled and furnished, and the plant is now valued at \$112,000.

The sanatorium is located at an elevation of 4,500 feet, on a table land on the east side of Mount Franklin, a mountain more than 7,000 feet high. The property adjoins the city of El Paso, Texas, and not only commands a view of the Franklin Mountains, but also a magnificent view of the mountains of New Mexico, western Texas and Northern Mexico, whose border is about six miles away.

El Pilar, a noted mountain peak nearly one hundred miles away in Mexico, and several mountain ranges in northern Mexico, can be seen from the broad front porch of the administration build-

ing. From this point also the peaks of the White Mountains of New Mexico, more than one hundred miles distant and rising 12,000 feet above sea level, are visible.

Across Fort Bliss one can see the green valley of the Rio Grande in panoramic view for nearly a hundred miles. Even people who have lived in the West and who are accustomed to magnificent scenery are much impressed with nature's grandeur here, and those

not accustomed to such views are entranced.

The balmy, sunny days, the cool, refreshing nights, the exhilarating air, the mild winters, the magnificence and grandeur of the scene, combine here in a remarkable degree to heal those who suffer from tuberculosis.

The plans for development in the immediate future call for the expenditure of \$500,000 on buildings and equipment, and for \$500,000 endowment. This building program will cover a period of about four years, and then, no doubt, other developments will be projected. At the end of this four years we hope to have room for 200 to 250 patients. The block plan will be carried out in the buildings, and contracts will soon be let for the erection of the first unit.

Dr. J. A. Standing is medical director. He has

*Part I.—From the administrative standpoint.
By H. F. Vermillion, M.D., superintendent,
Southern Baptists Sanatorium, El Paso, Texas.*

*Part II.—From the architectural standpoint.
By Carl A. Erikson of Richard E. Schmidt, Garden & Martin, Architects,
Chicago, Ill.*

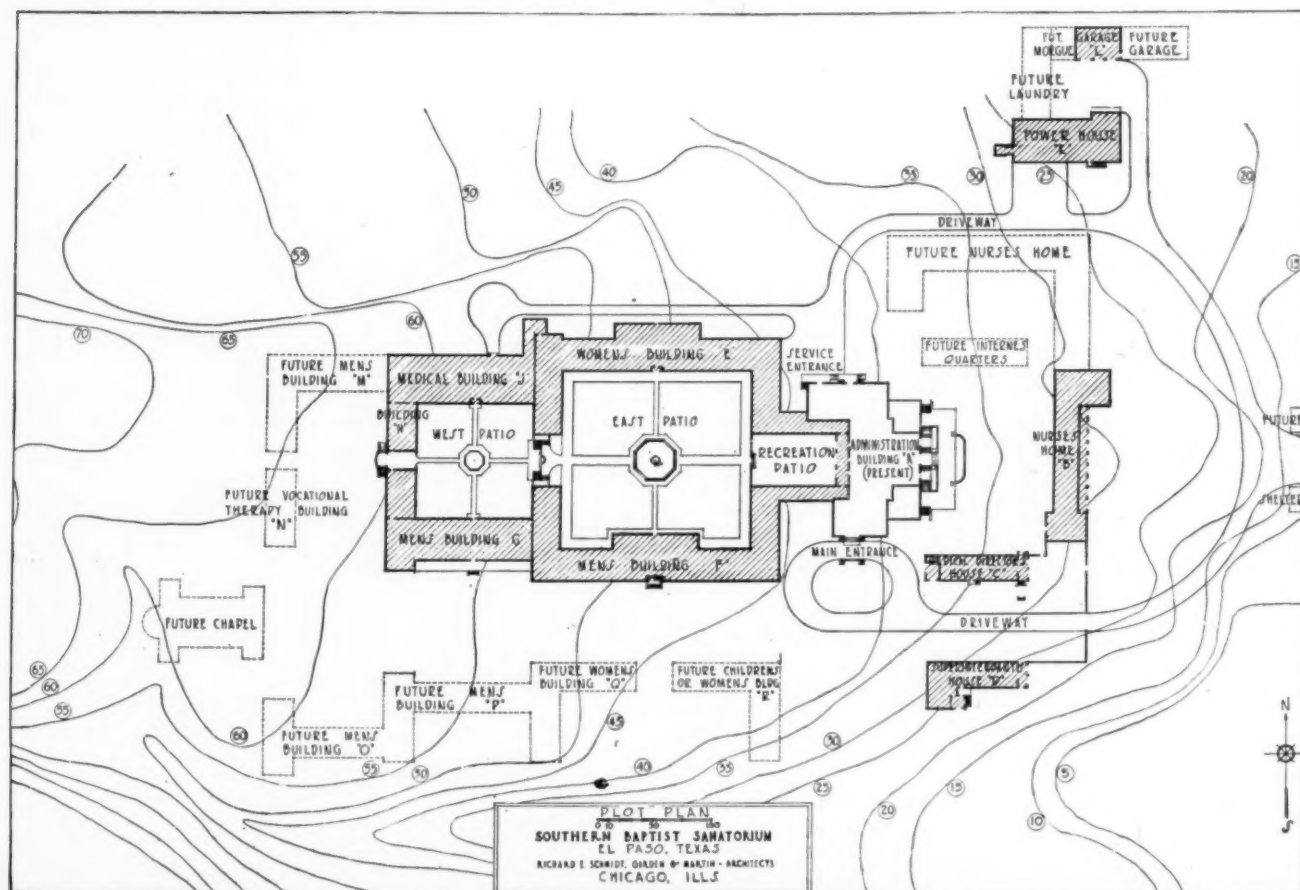
been for many years in sanatorium work, and has been connected with some of the best sanatoriums in the Southwest. Richard E. Schmidt, Garden and Martin, of Chicago, are the architects. They have been given a free hand and have been instructed to make the institution modern and scientific in construction and equipment. The superintendent has spent many months in the study of sanatorium construction, equipment, and methods. He is fortunate in having the help of the medical director, the superintendents of many sanatoriums, and many other experts whose suggestions are invaluable.

Only the preliminary sketches prepared by the architects are in hand as yet, but by the time this is in print contracts for the first unit probably will have been placed. This unit will contain a modern nurses' home; homes for the medical director and the superintendent; power house, including quarters for male help, hot water supply and steam heating for the entire plant, refrigeration plant, laundry, and cold storage rooms; medical building, including medical director's office, four other doctors' offices, patients' waiting rooms, drug and supply rooms, dressing rooms, lavatories, sterilizing room, pneumothorax room, operating room, x-ray room, laboratory, and morgue.

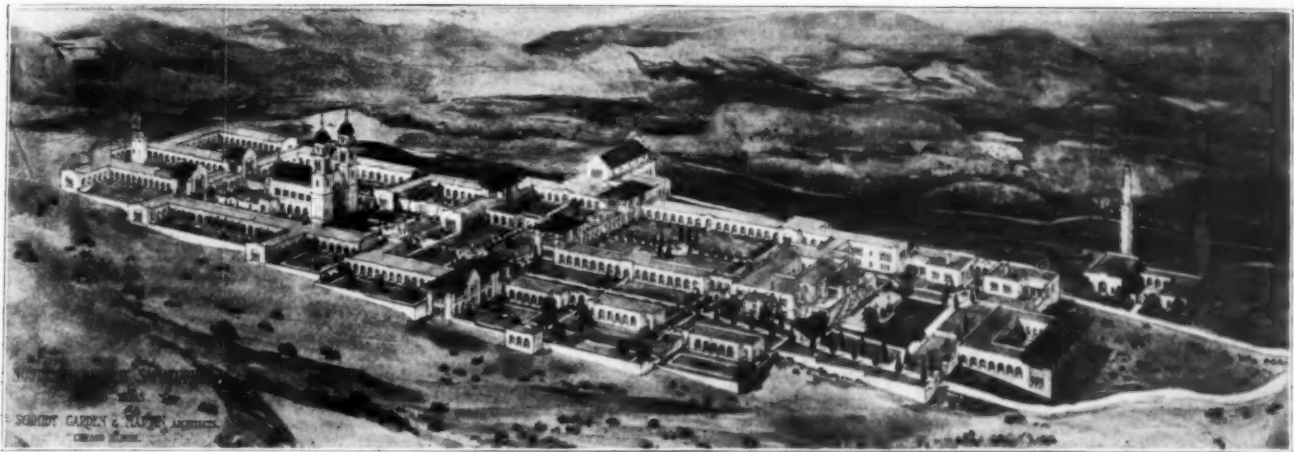
We hope in this unit to have rooms for about 100 patients. The patients' quarters will form the north and south sides of a patio, and the north side of a future patio, women's quarters being on the south side and men's on the north. The patients' rooms will have nearly the entire south front, made of disappearing windows, and on the north ample ventilation is provided; warmed dressing rooms, closets, and baths are built in, so that patients may have access to these comforts at all times, and yet sit and sleep in the open, fully ventilated room.

Wide verandas and a large recreation hall supplement the comforts of a climate where patients can stay in the open most of the time. Fountains, grassy lawns, flowers, shrubs, and trees will add to the beauty and comfort of extensive patios and wide avenues. Everything will be provided that can give comfort, variety, and pleasure to the otherwise monotonous life of the health seeker.

The present building has business offices, recreation hall, ample kitchen, and dining hall, sleeping porches, wide verandas, linen rooms, storage rooms, temporary room for x-ray laboratory now in operation, temporary office and treatment room for medical director, and temporary quarters for employees. At present we care for from fifteen



Plot plan of Southern Baptist Sanatorium, El Paso, Texas.



Birds-eye view of the Sanatorium.

to twenty-five patients, but we take ambulant patients only. Our rate is about half the cost of maintenance. When present plans are carried out, somewhat higher rates will be charged. There are a few free beds, and the number will be increased as our endowment grows.

We have a correspondence department that distributes a great deal of information concerning the prevention of tuberculosis and the care of patients. This department will be increasingly useful, and will be extended to include traveling nurses and lecturers. Later on we shall probably also do research work.

It is hoped by the management of this sanatorium that we shall be able at some time in the near future to render much help to the negro race. We do not know in just what way we can serve them

best, but we hope to secure an endowment fund, the income of which may be used to combat tuberculosis among the negroes. We have no immediate prospects of such a fund, but a great majority of the negro race are Baptists, and we have the most direct avenue of approach to them, and could easily be of great service if we had the means.

Negroes are very much more susceptible to tuberculosis than whites, and where the population of the two races is equal, three negroes die of the disease for each white person. On account of their industrial and domestic relation to the whites the negroes are a great menace to health, and are, no doubt, the prolific source of the spread of the disease, not only among their own people but among the white race also.

PART TWO

FROM THE ARCHITECTURAL STANDPOINT

BY CARL A. ERIKSON OF RICHARD E. SCHMIDT, GARDEN & MARTIN, CHICAGO, ILL.

IT IS refreshing to find that privately controlled charity has not abandoned the tuberculous patient. As a phase of social maladjustment, tuberculosis is a governmental problem of stupendous proportions; as a disease devastating the community it should have the support of both public and private funds. Unfortunately, however, neither public nor private charity has kept pace with the needs. The widespread belief that certain climates are more favorable to the treatment of tuberculosis has placed most of the private sanatoriums in locations far from those who could subscribe most to them. Charity sanatoriums located in these more favored zones must necessarily be supported by nationwide organizations. A number of religious and fraternal bodies have already established sanatoriums and others are considering similar action.

None begins more auspiciously than that of the Southern Baptists. An endowment of \$500,000, a building fund of an equal amount, 143 acres of land in the foothills of Mount Franklin, and policies determined by an extraordinarily broad vision and a tempered enthusiasm, place this sanatorium in a very enviable position. The nature of its control, the Home Mission Board, consisting of elected representatives from the entire church, insures that sectionalism will be forgotten. The traditions of the Church insure no less that it will be non-denominational. The directors confidently expect that this hospital will be the center of research and education in the Southwest, and that its influence in combating the "white plague" will reach all over the South. Surely we may expect much from an institution so fortunate in the initial supply of its material

needs, its policies, and its vision. Intelligent study, criticism, or discussion of the accompanying plans is not possible without an understanding of the treatment of the disease, of the patient's social, economic, and physical condition, of the climate, of the site, and of the funds available. The readers of *THE MODERN HOSPITAL* are familiar with the treatment of the disease. The quality of the delightful El Paso climate need not be discussed here. The available funds have already been mentioned. The site and the patients are the two major factors which, superimposed on the other factors of the problem, led to the adoption of a plan which is unique in many respects. It has been adopted, after studying many other possibilities, as being best fitted for this sanatorium. As each institution has its peculiar conditions, this plan is presented only as a guide. To make it of greater assistance, the special conditions surrounding it are outlined.

In spite of widespread warnings to the contrary, the tuberculous still come here hoping to find "light occupations," and with funds for a short stay only. Many of these grow weaker, and who is there to care for them? State, county or city funds seem to be out of the question, for these people are not citizens of the community. There are also a large number, rich and poor, who hopefully defer treatment until the efficacy of "altitude, sunshine, and equable temperature" are the last desperate venture. These patients will be thrust upon the sanatorium, and it will require careful management to insure that the hospital is not preempted by this class.

A more hopeful class will be those sent from their homes over the entire south. Sanatorium beds are few, and early diagnosis may be difficult for the average physician, so that even this will give many "moderately advanced" and very few incipients. Every indication emphasizes the fact that, in common with most sanatoriums, it will be largely devoted to the care of the "moderately advanced" and the "advanced." It is hoped, however, that treatment of incipients will

be ultimately the primary care of the sanatorium.

The site, always important, is here one of the mainsprings of the plan. In the eastern foothills of Mount Franklin, eight miles north of the city and hundreds of feet above it, the sanatorium overlooks hundreds of miles of valley below. To the north, south and east rise the mountains fifty miles away; to the west rises the stern and bleak Mount Franklin, whose brown slopes seamed with deep arroyos are like the wrinkled, weather beaten face of a kindly old man. Majesty, no matter how serene, must be domesticated lest it become overpowering and depressing to the human ants burrowing in the hills. To keep the views in all their majesty and yet confine them was one distinct phase of the problem. The grounds, too,

would be too hopelessly arid to be enjoyed for long by those not accustomed to its peculiar beauty. Water is, as elsewhere, the magic wand to which the soil responds surprisingly; the vegetation becoming almost tropical in its luxuriance when abundant water is available. But water on the mountain side is hard to get; to maintain a large area covered with grass is too expensive in initial cost, and maintenance. Yet this was an essential of the scheme.

The topography was such that only one

building site was available; a gently rising table land directly west of an existing building between two deep arroyos, varying in width from 350 to 700 feet and the entire length of the property.

Fortunately the existing building (built for a country club) stood well towards the road on this table land. This building with practically no alterations made an excellent administrative recreational and dining center.

How the Problems Were Met

An examination of the group plan will indicate how the various problems have been met. The administration building, "A," being already built, the probabilities that the first years of the institution would be devoted largely to the care of the



The Chapel, Southern Baptist Sanatorium.

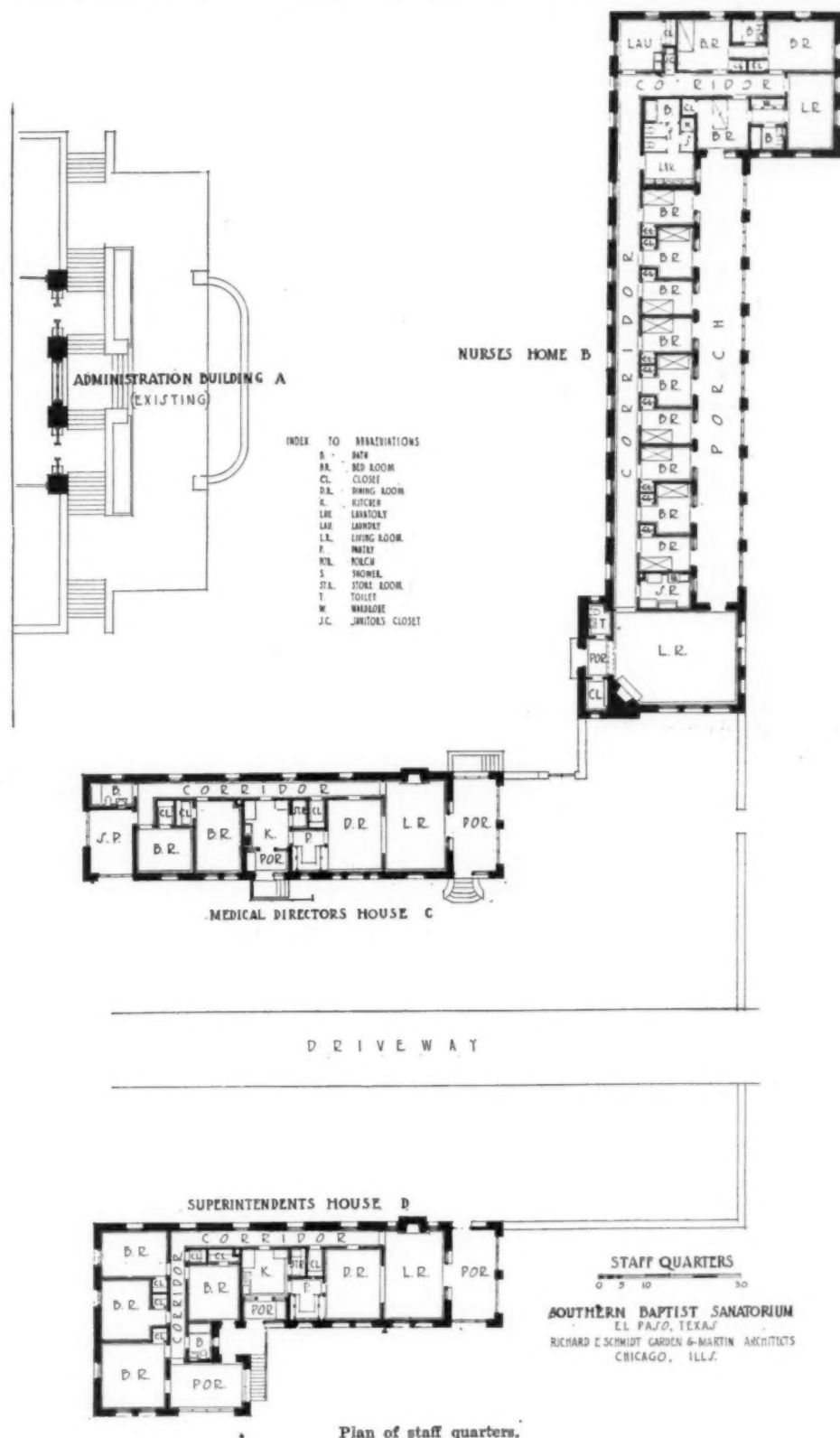
moderately advanced, have been recognized by attaching the first buildings, "E" and "F," closely to this center. The buildings "G" and "H" are

These buildings may continue the infirmary buildings as represented in "E," "F," and "G," or may be buildings for ambulatory cases and of a radically different type.

South of the entrance avenue, it is planned to place a number of buildings for the ambulatory cases; the exact arrangement has not yet been studied. The medical center has been divorced from the administration building, and is placed in the center of the patient's quarters, where bedridden cases may be easily brought for examination, yet it is conveniently accessible to the ambulant.

The administration building, "A," forms a most convenient barrier between the personnel quarters, "B," "C," and "D," and those of the patients. The advantages are obvious. The power house is so located that it will take all of the steam returns from the building and yet so that the prevailing breezes will blow any stray smoke away. Its convenience to the highway (only slightly above it) is another distinct advantage.

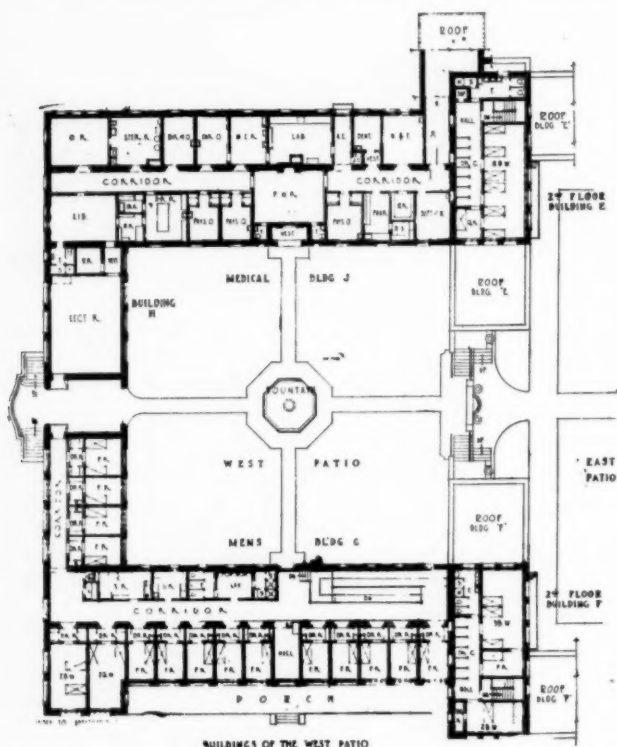
To obtain the oasis of tropical luxuriance, so easy with water, the buildings have been built around a series of patios. This confines the use of water to a limited area, and provides by contrast, greater emphasis on the loveliness of the patios. Directly west of the administration building is the first patio, an offshoot from the larger east patio. This one differs from all



of a similar nature. The buildings on the Chapel Court and westward are not yet designed, and will not be until the needs are more fully developed.

others, in that it is paved with cement and tile and is, relatively, quite small. This is the open air recreation hall, a supplement to the enclosed recrea-

tion space in building "A." Five steps above this one is the west patio, a little over half an acre in extent. In the center is a large fountain and it is



A. E.—Ambulance entrance.
 2 B. W.—2-bed ward, 3-bed ward, etc.
 Dent.—Dentist.
 Dir. O.—Director's office.
 Dir. of O.—Director of occupation.
 Dr. C.—Dressing closet.
 Dr. R.—Dressing room.
 Dk. R.—Dark room.
 D. S.—Drug storage.
 J. U.—Janitor's closet.
 L.—Linen.

Lab.—Laboratory.
 Lav.—Lavatory.
 Lect. R.—Lecture room.
 Lib.—Library.
 M. E. R.—Medical examination room.
 M. R.—Machine room.
 N. S.—Nurses' station.
 N. & T.—Nose and throat.
 O. R.—Operating room.
 Phar.—Pharmacy.

Phys. O.—Physician's office.
 P. W. R.—Patients' waiting room.
 P. R.—Private room.
 Q. R.—Quiet room.
 S.—Shower.
 Ster. R.—Sterilizing room.
 Sup.—Supply.
 St. R.—Store room.
 T.—Toilet.
 U. R.—Utility room.
 X-R. R.—X-ray room.

bordered by a broad concrete pavement. Here the patients may enjoy an ideal rest hour, sheltered by gay umbrellas from the brilliant El Paso sunshine which sparkles on the fountain. Fourteen steps above this patio is the west patio, smaller but otherwise similar. Beyond this will be developed additional patios as the needs are indicated. From the recreation room in building "A," an uninterrupted and constantly rising vista up the patios will lead the eye far up Mount Franklin.

The entrance avenue will be less luxuriant in its foliage, properly shaped trees and grass will be the only vegetation. The buildings south of this court will each have a simple garden between them and the brown hillside. The personnel patio, directly east of building "A," will be simply and broadly handled, much like the entrance court.

One Story Plan Adopted

After careful consideration, it was determined to make most of the buildings one story high. This was found to be more economical in building and maintenance.

With these plans determined by the needs, the architectural detail was a very simple matter. With a plan such as this, and in El Paso it needs no architect to forecast the type of design. The architecture of the seventeenth century still survives in many buildings near El Paso. Generally these were of adobe, and of the simplest outline, with ornament sparingly used. The missions of St. Augustine, San Antonio and Southern California are our best representatives of this colonial architecture. Its simplicity when combined with attractive proportions makes an almost perfect basis for the exterior design. The needed vertical emphasis has been secured by the dominance of the chapel group. The materials are stucco on stone walls, sloping roofs of fire flashed tile, and ornament of stone, terra cotta, or colored tiles.

Little comment is necessary, for plans of each building are self-explanatory. The nurses' buildings, "B" and "E," and the officers' buildings, "C" and "D," need no comment other than to call attention to the single rooms and sleeping porch for the nurses, and to the two porches on each side of the houses.

The administration building, "A," provides an admirable recreation hall, dining room, and kitchen. On the ground floor is ample room for storage, and for some servants' quarters.

The policy of the institution being to care for rich and poor, all classes of quarters are provided in the patients' buildings, "E," "F" and "G." For the wealthy are provided a very few suites consisting of a porch, room, and bath. There are a few more consisting of room and bath. The balance are one and two-bed rooms except for one three-bed room, and two six-bed porches for ambulatory patients.

The typical patient's room (whether one or two-bed), requires special attention. Everyone who builds a sanatorium is confronted by a number of difficult problems. For instance, the tuberculous patient must have fresh air and rest, but occasionally he must have heated quarters for shorter or longer periods. It has been customary to meet this difficulty by building a porch partly or entirely across the front of the room. Either scheme is questionable, as it shades the room, makes ventilation difficult, destroys privacy, requires much labor in moving the bed, is extravagant of space, and is consequently expensive. If the porch is omitted and wide glazed openings provided in the room, the patient ordinarily has no heated place to dress except at some distance from his room. After careful consideration and study, the typical patient's unit, shown in these plans, was first evolved for the Adams County (Ill.)

Sanatorium and later perfected at the Ashland-Bayfield Iron County (Wis.) Sanatorium. It consists of a room which may be quickly converted into a porch by opening all the windows. The radiator is controlled by a removable valve handle, so that its regulation is dependent on the physician's instructions. Directly back of this is a dressing room four feet wide, with dressing lockers. This room is heated as the patient desires. It is separated by the large glazed door with hinged transom from the bed room proper. In warm weather it may be opened and the rooms are practically one. The door to the corridor has its transom, both of these, however, being of wood. Most of the buildings have rooms on one side of the corridor only, insuring excellent ventilation in the rooms and the corridors.

Details Carefully Worked Out

The arrangement of the bathing, washing, and toilet rooms in the patients' buildings is worthy of special attention. Each patients' building is completely arranged for the care of the patients. A nurses' call system of the silent type will be installed, as will a doctors' call system, with the sending station at the telephone switchboard in the administration building. For obvious reasons telephones are not provided in the patients' rooms, though each building has a telephone booth centrally located.

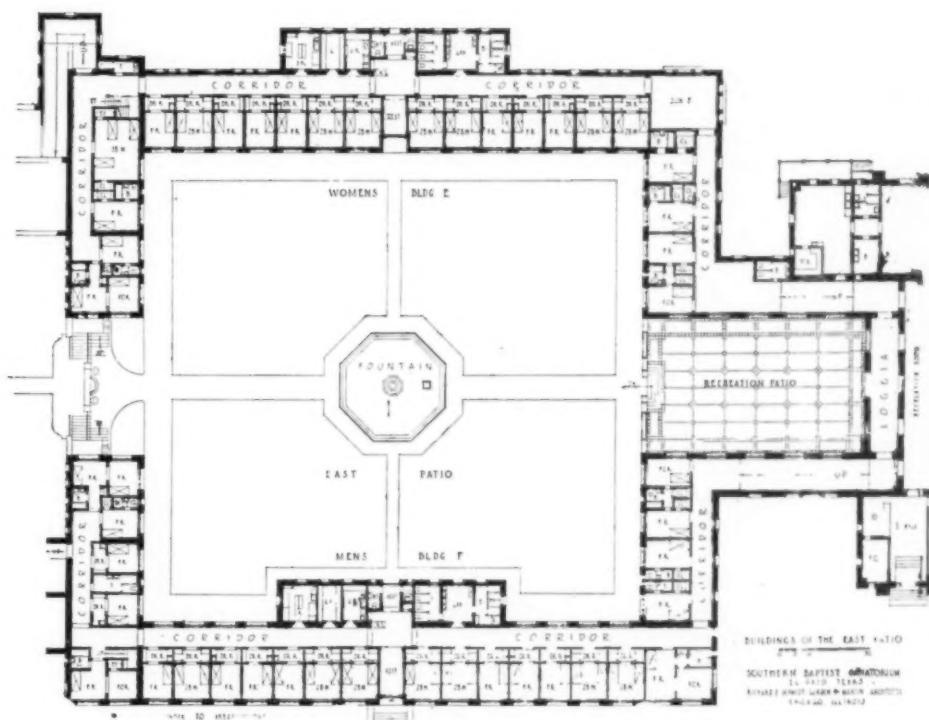
Food service will be from the existing kitchen to the ambulant patients' dining room adjacent in building "A," or to the serving pantries in the various buildings, and from them to the bed-ridden patients, on trays. Ample kitchen and storage space is provided here. Serving pantries are provided with electric hot tables and plates as well as cases, sinks, etc.

The completeness and convenience of the medical building, "J," should also be noted. At the request of the officials of the National Tuberculosis Association a lecture room was added. The

society hopes to use this plant to give brief courses of lectures to physicians and nurses, and to stimulate the interest of the laymen.

Adjacent to the boiler room, in building "C," is a large ice-making room and ample cold storage boxes. The water used in the refrigerating machinery is cooled by spraying in the fountains of the east and west patios, converting a utilitarian necessity into a decorative accessory. The heating is by means of vacuum steam from two 125-horsepower high-pressure boilers, with room for a third. Coal bunkering is so arranged that trucks may drive directly over it and dump, and yet the ashes may be wheeled out the north side and dumped into the arroyo, an arrangement only possible with nature's assistance. Over the engine room four servants' rooms have been provided. Very few of the buildings have basements, the floor being laid directly on grade, and the necessary pipes being carried in trenches. All sterilization is by electricity.

It is hardly necessary to add that all the corners have "sanitary" coves. The floors and base are of terrazzo, the walls of hard plaster painted generally with flat wall paint, but in the sewing, utility rooms, etc., and in the medical building,



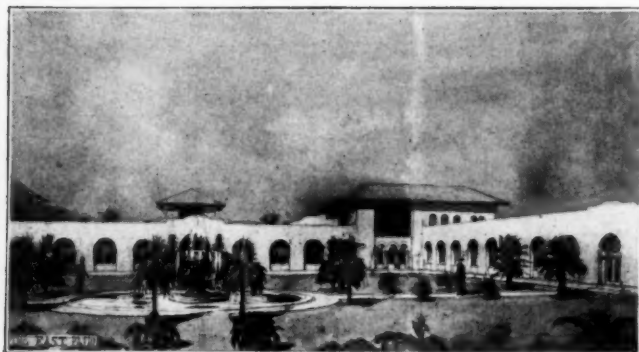
Buildings of the East Patio.

A. E.—Ambulance entrance.
B.—Bath.
B. R.—Bed room.
2 B. W.—2-bed ward, 3-bed ward, etc.
Cl.—Closet.
C. V.—Coal vault.
Dent.—Dentist.
D. R.—Dining room.
Dir. O.—Director's office.
Dir. of O.—Director of occupation.
Dr. C.—Dressing closet.
Dr. R.—Dressing room.
Dk. R.—Dark room.
D. S.—Drug storage.

Boi. R.—Boiler room.
I. S.—Ice storage.
I. T.—Ice tank.
J. C.—Janitor's closet.
K.—Kitchen.
L.—Linen.
Lab.—Laboratory.
Lav.—Lavatory.
Lect. R.—Lecture room.
Lib.—Library.
Lau.—Laundry.
L. R.—Living room.
M. E. R.—Medical examination room.
M. & P.—Machine and pump room.

M. R.—Machine room.
N. S.—Nurses' station.
N. T.—Nurses' toilet.
N. & T.—Nose and throat.
O.—Office.
O. R.—Operating room.
P.—Pantry.
Por.—Porch.
Phar.—Pharmacy.
Phys. O.—Physician's office.
P. W. R.—Patients' waiting room.
P. O.—Private office.
P. R.—Private room.
Q. R.—Quiet room.
Ref.—Refrigerator.

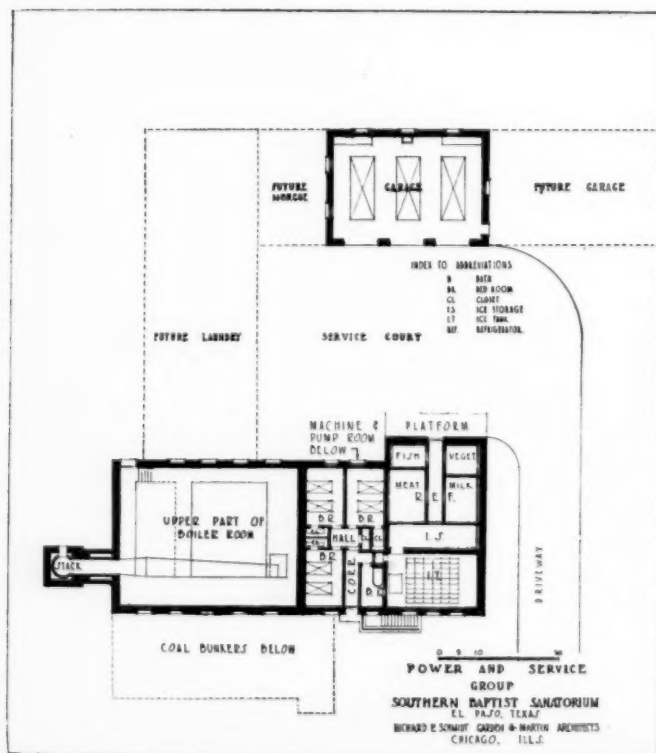
R. R.—Recreation room.
S.—Shower.
Ster. R.—Sterilizing room.
Sup.—Supply.
St. R.—Store room.
Sun P.—Sun porch.
S. R.—Serving room.
Supt. of N.—Superintendent of nurses.
S. P.—Sleeping porch.
T.—Toilet.
T. R.—Telephone booth.
U. R.—Utility room.
W.—Wardrobe.
X-R. R.—X-ray room.



A corner of the East Patio.

the walls are finished in enamel paint. Lighting fixtures in the patients' rooms are of the bracket type with outlet for examination or reading lamp, or other accessories. In the dressing rooms the lights will be the semi-indirect ceiling fixtures. Flush or slab doors are stained to imitate walnut, and varnished. Door jambs are of wood of a sanitary hospital type. Throughout the entire group, patients' and personnel quarters as well, ease of cleaning has been constantly striven for in the detail of the finish. It has not been carried to the ridiculous extreme sometimes found, for common sense and experience have been applied to each of these details.

It is the hope of the architects that this sanatorium will contribute a little through example and education to the amelioration of the almost appalling problem of the care and cure of the tuberculous.



Plan of power and service group.

SOCIAL SERVICE MAGAZINE STARTED

After two years of publication, *The Hospital Social Service Quarterly* has become a monthly magazine to be known as *Hospital Social Service*. Medical social service in hospitals has passed the formative stage, and is now recognized as a distinct department.

The Hospital Social Service Quarterly was first published in February, 1919. Prior to this time the chief writings on the subject were embodied in the works of Dr. Richard Cabot, and in occasional special articles in hospital and medical journals. The Proceedings of the Hospital Social Service Association of New York City preceded the *Quarterly*, and consisted chiefly of papers read at the meetings of the association. The first issue of the monthly magazine contains the survey of hospital social work in the United States, made by the American Hospital Association last year; an account of social work in hospitals of Toronto, by Mr. Robert Mills of the Toronto Health Department; an article by O. M. Lewis and two collaborators of the division of venereal disease of the Massachusetts General Hospital; a discussion of methods of parental authority, by Miss J. L. Beard. Besides news notes and abstracts of articles of interest to the medical social worker, there are departments devoted to the American Association of Hospital Social Workers, and to cardiac, nutritional and handicap work.

RED CROSS PEACETIME ACTIVITIES GROW

The bulletin of the City Club of Chicago referring to an address made there by Dr. E. A. Peterson, director of the Red Cross department of health service, says, "The health center has become one of the chief peacetime activities of the American Red Cross. Its object is to prevent disease and promulgate right living; its main function is to dispense health advice."

When the Red Cross came out of the war it found itself a huge organization of twenty-four million members, who having once tasted the joy of social service, did not wish to give it up. The society turned to the health field. Although there were already 210 organizations in the field, the high mortality rates showed that there was plenty of room for another one. The plan of attack involved first the utilization of the force of neighborly advice. People listen to, or at least follow the advice of neighborhoods much more readily than that of experts. So it was the plan of the Red Cross to get the advice of experts into the mouths of neighbors. This being accomplished by health centers whose functions are: (1) to answer health questions, (2) to display in attractive form advice to individual groups, (3) to promote exhibits appealing to the eye, (4) to centralize all health activities, (5) to attack them problem of undernourishment. These things are accomplished without the help of a staff of highly trained experts. The next stage of the work will be the establishment of clinics so that physicians' services may be more available to the community.

PUBLICITY AND PROGRESS IN NURSING EDUCATION

BY S. S. GOLDWATER, M.D., DIRECTOR, MOUNT SINAI HOSPITAL, NEW YORK CITY

IT IS reported that Michigan's stirring campaign for probationers has resulted in overcoming the shortage of pupil nurses in that state. Illinois is now following Michigan. About a year has elapsed since the managers of a group of hospitals in Chicago came together, to organize what is now known as the Central Council for Nursing Education. The Council for Nursing Education promptly established an office, installed a full-time executive secretary, and began an appeal to the women of Illinois to enter the nursing profession.

In discussing the work of the Central Council recently, Miss Wilson, a member of the board of managers of the Children's Memorial Hospital in Chicago, and a leader in the organization and development of the Council, said that the Council now includes representatives of twenty-one hospitals, chiefly located in Chicago, St. Louis, and Kansas City. A much larger membership would be enlisted immediately if the ban on hospitals which are conducted for profit were lifted. The organization and its executive officer have thrown themselves with ardor into a recruiting campaign in which interesting methods are being used with satisfying results.

What Is the Need for Nurses?

The organized campaign for probationers is not likely to be confined to the Middle West. At this moment the hospitals of New York, rarely as alert as they should be in such matters, are considering the formation of a Council on Nursing Education for the Atlantic States, and the prediction has been made that within a year the whole country, section by section, will be organized in the same way.

A movement which aims to create an adequate supply of pupil nurses for all of the training schools of the country merits the support of hospital boards and, indeed, of every one who is interested in the public health. Is the movement likely to succeed? Before this question can be answered intelligently, two other questions must be put and answered. First, precisely what is

What is the need for pupil nurses? Would it be fair to try to enroll in training schools six times the present number of pupils? What are the attractions which the profession of nursing offers? First, education; but how efficient is that education? Are training schools sacrificing their pupils to the care of the sick for whom better provision should be made? Second, a livelihood; but is it a fair livelihood? After spending three years in training, the nurse may get a living wage for twenty years, but is there any provision for old age? Third, opportunity for service; is the training sufficiently flexible to fit her for any service which might be open?

the need which the Council for Nursing Education and the whole publicity movement are intended to meet? Second, what attractions have the hospitals to offer?

First, as to the present and prospective need: in round numbers there are in the general hospitals of the United States that undertake to care for persons suffering from acute diseases, about three hundred thousand beds (we need not stop

to quibble about exact numbers, for if this estimate is 10 per cent high today, it is pretty certain to be 10 per cent low tomorrow, when backward sections make up their present deficiency in hospital beds). For many years the nursing work in general hospitals was conducted on the basis of a twelve-hour working day, but latterly a number of hospitals have established an eight-hour day. The prediction may safely be made that an eight-hour day will ultimately prevail, and I shall, therefore, base my calculation on this assumption.

Need Three Hundred Thousand Nurses

Under an eight-hour system, three hundred thousand nurses would supply three hundred thousand hospital patients with service at the rate of one nurse on active duty for every three patients. An allowance of one nurse for three patients is excessive for the night shift, but this apparent excess is offset in a number of ways; for example, approximately one-twelfth of all pupil nurses are always off duty on account of vacations or illness (this allows for a three weeks' vacation and an average of one week of illness per annum); not less than one-eighth of the pupils in well conducted schools are beginners undergoing a probationary course, and not yet entrusted with responsible ward duty; while other groups, aggregating an additional one-eighth of the total number, are ordinarily employed outside of the wards, in the diet kitchens, operating rooms, supply rooms, outpatient or social service departments, etc. We must, therefore, assume that out of a total hypothetical enrollment of three hundred thousand pupils one-third (one-twelfth plus one-

eighth plus one-eighth) are not actually available for ward duty. In other words, under existing working conditions, an enrollment of three hundred thousand nurses would yield a force of only two hundred thousand nurses available for bedside service, day and night included.

Thus far it has been assumed that the classroom work of junior, intermediate, and senior nurses, or in other words, of all nurses above the rank of probationer, is done outside of the eight hour day. This appears to be a common practice today, but there are indications that the practice will not last long, and in any general review of the situation, present and prospective, it would be a mistake to disregard the widespread demand that the eight hour day be so arranged as to include the time devoted to study and instruction. If this is done, it will ultimately become necessary to make an allowance of, say, two hours out of the eight hour working day for class work and study. Instead of three shifts, four will be required. This will reduce the number of nurses actually engaged in ward work at any one time from one-third of 200,000 or 66,666, to one-fourth of 200,000, or 50,000. We assumed at the outset the enrollment of 300,000 pupil nurses to care for 300,000 patients, and out of such an enrollment it does not appear to be reasonable to count on the actual presence in the wards of more than an average of 50,000 or one nurse to six patients. Is this standard too high? The proposed or calculated allowance may still be unnecessarily liberal for the night hours, but as an average for the whole twenty-four hour period, it will not seem excessive to those who are familiar with actual hospital conditions.

Pupils Cannot Do All Hospital Nursing

Remember that we have been talking only about general hospitals, and have not brought into the calculation the 400,000 or more beds to be found in hospitals for the insane, sanatoriums for the tuberculous, hospitals for chronic diseases, homes for the aged and infirm, convalescent homes, etc. The hospitals that we have been considering are those which feel that they have the right to, and which, as a rule, do attempt to maintain training schools; and it appears that if these hospitals propose to have all of their nursing done in a reasonably satisfactory manner by pupil nurses, there must be an enrollment, sufficient to enable the hospitals to graduate 100,000 nurses annually. The present graduation rate is about 15,000. Would it not be rash to expect any publicity campaign to bring about a six- or seven-fold increase in undergraduate nursing enrollment? The inference is plain. We must abandon the attempt to assign to pupil nurses, exclusively or even chiefly, the task

of caring for the sick in general hospitals. It is attempting the impossible.

Even if the staggering enrollment that seems to be required to maintain the system of general hospital nursing by pupils exclusively, could be accomplished, its accomplishment would be a stupendous fraud, for while more graduate nurses for bedside work may be needed than are now available, it cannot be maintained that, if the country graduated six or seven times the present number, the greater number would be profitably employed. Year by year the relative need of the acutely sick in and out of hospitals changes; the nursing need within the hospital relatively increases, while the need outside of the hospital relatively diminishes, for every year the hospitals care for a larger and larger proportion of the sick. The hospitals cannot promise post-graduate employment to an army of 300,000 pupils, graduating at the rate of 100,000 per annum, and it would be wrong to train such numbers, even if it were feasible to enroll them.

Hospitals Must Have Paid Staff

If what has been said is true, it follows that a large part of the personnel of the hospital must and should consist of permanent employees, rather than pupils in training. I shall not attempt here to analyze hospital work with a view to showing just what proportion of the permanent personnel of the hospital should consist of trained nurses, and what proportion of orderlies, attendants, ward maids, or nurses' helpers otherwise named, but for the moment will confine myself to the statement that the hospital nursing organization of the future cannot and should not be wholly or mainly an organization of pupils in training. On the contrary, there should be a permanent staff of paid workers—trained nurses and others. The task which lies before us, therefore, is not the task of securing a supply of pupils sufficient to care for the whole number of sick in hospitals. A serious attempt should be made, nevertheless, to enroll a larger number of pupil nurses than has heretofore been available, and the work of the Central Council for Nursing Education, and of all similar agencies, merits hearty support.

Hospitals Must Realize Own Needs

Besides making the women of the country aware of the possibilities of nursing, the Council may legitimately undertake to make the hospitals aware of their own needs and prospects, as we have just analyzed them. There are financial and other questions involved in this analysis which are of the utmost importance. Large sums of money are needed to provide proper housing for pupil nurses, and other large sums for the payment of

salaries for the necessary permanent staff. With the introduction of large permanent staffs, the relation of the nursing school to the hospital will change; reorganization will become necessary, and educational progress will be facilitated.

There are three things which the publicity agent can offer to young women who are willing to take up nursing as a career; an education, a livelihood, and an opportunity for service. How substantial an education, how satisfactory a livelihood, and just what opportunities for service, are questions that prospective candidates have the right to ask, and these questions should be anticipated by the hospitals. Searching self-criticism along this line will be most helpful.

How efficient is the teaching of the average training school? Assuming that an approved curriculum has been adopted and announced, does the course, as actually given, invariably carry out the promise of the published outline, or is essential teaching neglected, in order that the needs of the hospital may be met? It is obvious that the needs of the hospital must be met, for the sick cannot be neglected; but it by no means follows that pupil nurses must be sacrificed to this end. A state inspector of training schools recently declared that less than 10 per cent of the small hospitals of her state were adhering to their teaching programs; the remaining 90 per cent were reported to be taking unfair advantage of their pupil nurses by surrendering the rights of the pupils in the alleged interest of the sick. Such conditions are not encouraging to the sincere publicity agent; through pupils already enrolled, these conditions become known to prospective students, and they do not contribute to the success of a publicity campaign.

Is a Three Year Course Necessary?

In the matter of earning power, all that the hospitals can promise to graduates is a fair livelihood for a period of fifteen or twenty years after graduation. Contemplation of the later life of the average graduate is not reassuring, for there is little active demand for elderly nurses, apart from maternity work and the general nursing of a few appreciative families. If the hospitals are to continue to bring large numbers of women into the nursing profession, and in so doing cut them off from other gainful occupations, should not a plan be devised that will make the economic position of the nurse a more bearable one? It is not idle security that nurses ask for; what is wanted is a reasonable guarantee against unforeseen accident or illness, and a system of compensation, or a pension system, at least, that will make old age bearable. Greater economic security for the nurse would materially lighten the labors of the publicity

agent in the present campaign for probationers.

The economic question cannot be dismissed without a word about the length of the course of training. Women are asking whether three full years of training are an indispensable prerequisite for ordinary bedside service. They want to know whether a woman should be asked to wait so long before beginning to earn an independent livelihood. An appeal for a two-year enrollment would probably meet with more generous response than an appeal for an enrollment for three years; and there is good nursing authority for believing that the essentials of bedside nursing can be taught to intelligent women in two years of well-organized teaching.

The success of the publicity movement could undoubtedly be enhanced in another way, namely, by making the monetary allowance of the pupil nurse during her undergraduate years sufficient to enable her to clothe herself decently, to obtain a modicum of innocent amusement, and to spend her vacation in a place and manner of her own choosing.

A word, in conclusion, about the opportunity for service. It would seem to be the duty of schools of nursing to modify the course of instruction from time to time, so that the door of every new public and private service that may properly and efficiently be performed by the trained nurse, will be directly opened to her through the instruction which she receives during her undergraduate years. The training school curriculum has heretofore been far too narrow and inflexible. A three-years course, at any rate, could be made to cover much more ground; it could be made interesting, more instructive, and more effective and valuable as vocational training. In my opinion the three-years course should be either enriched or abandoned.

THE FLORENCE NIGHTINGALE CALENDAR

A Florence Nightingale Centennial Calendar has been prepared by the Committee on Education of the National League for Nursing Education, the proceeds to be devoted to a fund for the new National Nursing Headquarters in New York. The calendar has an attractive cover in colors, and contains a short characteristic quotation from Miss Nightingale's writings for every day in the year.

As many of Miss Nightingale's books are out of print and inaccessible to the general reader, no nurse will want to miss the opportunity of securing this attractive collection of the wise, pithy, and sparkling saying of the great genius and founder of her profession.

We want the help of all the nursing schools and nursing organizations in the country in making the sale of this calendar a great success, not only because it will make people better acquainted with Miss Nightingale, but because it will be a means of putting our newest cooperative nursing enterprise on a sound basis. Calendars may be secured from Miss Albaugh, Joint National Nursing Headquarters, 156 Fifth Avenue, New York City.

AMERICAN HOSPITAL ASSOCIATION CHOOSES WEST BADEN AS PLACE FOR NEXT MEETING

THE selection of West Baden Springs Hotel, in southern Indiana, as the place of meeting for the next convention of the American Hospital Association, which was made by the board of trustees at their last meeting, January 10, 1921, brings about a peculiar cycle in the medical and surgical world. For, two years ago, during the time when the real horrors of the world war were being brought to us, as our sick and shattered lads returned home, the beautiful West Baden hotel was one of the most famous military hospitals in America. Now, many of the eminent men of the profession, who were there in service or who were called in consultation, will have an opportunity to return to it amid scenes of decided contrast. For today it is styled truly a "Temple of Happiness." Its whole atmosphere breathes happiness, relaxation, and rest, and the long hours of suffering and anxious waiting are now unknown.

Though its period of service was short, a little less than a year, its record was a brilliant one, and in the whole history of American war hospitals probably no sacrifice was as great as the one made by the management here. It did not take long, with the mighty forces of Uncle Sam behind it, to transform its hundreds of rooms into hospital wards, officers quarters, and splendidly equipped operating rooms, but the metamorphosis into its present form has meant months of anxiety and ceaseless work. Now, however, it is safely back into its place in the world, better, more perfectly equipped, and more beautiful than ever before.

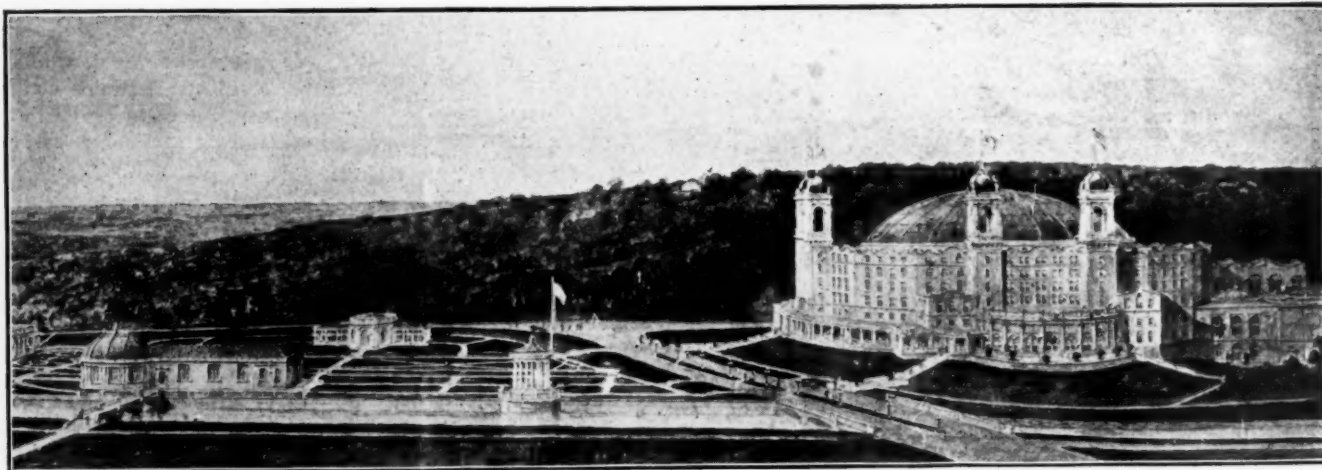
West Baden was organized as a hospital under Lieutenant Colonel Raymond W. Bliss, who remained as commanding officer throughout the period of its service. Colonel Bliss was a graduate of Tufts College and of Tufts Medical School, and had been in army medical service since 1911. Miss Alice Beatle, chief nurse, was also in charge of her department from the time of its organization until the hospital staff was disbanded, and her work was of high merit. She is one of the few people who saw the war from both sides, as she was in charge of the Red Cross Hospital at Budapest, until she was recalled by the entrance of America into the conflict.

The fame and unusual charm of this great place made it a center of activities throughout the Middle West. All organizations engaged in war work established headquarters here, and elaborate entertainments were staged for the boys. Of them all, the one never to be forgotten was the Christmas circus. Four shows had winter quarters in the village, and performing elephants, trained lions, bareback riders, and clowns by the score were brought in for the afternoon. The circus was held in the great inner court, in a huge circle around a gigantic Christmas tree, which reached to the fourth floor of the building.

The average number of patients in the West Baden hospital was from six to seven hundred, with officers, hospital staff nurses, and aides, to the number of one hundred and forty or more. At one time, the number taken care of here passed fourteen hundred. Undoubtedly, some of the prestige which the hotel, since its return to public life, has acquired as a convention center is due to the vast numbers provided for during war days.

Since the transformation of the inner court into a Pompeian room, with its marble floor, its artistic decorations, its beautiful lights and its comfortable furnishings, has been made, it has become the center of all social activities. Its seating capacity is almost unlimited, as there is not only practically forty thousand feet of floor space, but tier after tier of parlors and court rooms rising above it for audiences. The big ballroom of former days has been given over wholly as a convention hall, and it has a seating capacity of twelve hundred and fifty. Dining facilities and sleeping apartments are ample to take care of from eight hundred to a thousand guests.

Members of the Hospital Association may well look forward to a delightful vacation, as well as to an interesting and instructive session at West Baden. An attractive golf course, splendid saddle horses, bowling alleys, tennis courts, and swimming pool all add to the attractiveness of the place, while the picturesque country round about, with its caves, its rocky hills, its mysterious "Lost River," its fertile, narrow valleys, and upland orchards, holds an unceasing charm for all lovers of the big outdoors.



Birds-eye view of West Baden Springs Hotel.

VALERIA HOME, A NEW IDEA IN HEALTH CONSERVATION

By CARL E. MCCOMBS, M.D., CONSULTING DIRECTOR, VALERIA HOME, NEW YORK CITY

THE complaint is often heard nowadays that too little attention is paid to the health needs of those who are neither rich nor poor, the so-called "white collar" folk. There can be little question but that this complaint is well grounded and particularly so in large cities where the cost of living weighs most heavily on salaried workers, teachers, nurses, social workers, clerks, public employees and others, whose salaries have not kept pace with soaring prices. Readers of THE MODERN HOSPITAL will, therefore, be interested in the development of a year-round country home for recreation and convalescence, designed particularly for persons of moderate means.

Making the Home Possible

For many years prior to his death in 1914, Mr. Jacob Langeloth, president of the American Metal Company, had given generously of his means for the support of philanthropic work in this country and abroad. As a result of his keen interest in work of this kind, and his close study of its problems, he provided in his will for the establishment of a permanent corporation to carry out an idea which can not be better expressed than in his own words: "The said corporation shall be incorporated for the purpose of founding and maintaining

a home to be known as the 'Valeria Home,' to be adapted and used for the purpose of a recreation and convalescent home for people of education and refinement who can not afford independent homes, or to pay the charges exacted at health resorts or sanatoriums. The home shall be open to all creeds, entirely non-sectarian and absolutely free from any religious tendencies whatsoever. Such home shall, as far as may be feasible, be self-supporting, and it is my preference that inmates shall pay weekly charges to be determined by the directors. . . . I have observed that homes of this character have been organized for the benefit of the very poor, who are not able to pay anything for their support during their convalescence or during the period of rest necessitated by their ill health, while no provision seems to have been made for people of education and refinement belonging to the middle classes, who would not be justified in asking for or accepting charity, but who are, nevertheless, not able to pay the prices exacted for a sojourn in the usual health resorts or sanatoriums."

Having in mind the desirability of selecting a site for the proposed home which would be within easy distance of New York City, from which its guests will be chiefly drawn, the board of trustees,



A panorama view of Keg Mountain, looking north from a suggested cottage site.

of which Mrs. Valeria Langeloth, widow of the founder, is president, purchased an estate of one thousand acres about four miles back from the Hudson River in the Westchester hills and near Croton, New York. This site is admirably adapted for a year-round, country home. On high ground overlooking the Hudson River valley and the adjacent hills of Westchester County, it has every natural advantage, excellent drainage, ample supply of good water, a natural lake of great beauty, hundreds of acres of fine woodland, and sufficient farm land to supply the needs of the contemplated institution.

Farm House Remodeled for Temporary Use

In order that this splendid property might be utilized by the Government, which was then in need of facilities for the care of convalescent soldiers discharged from its hospitals, the board of trustees remodeled an old farm house on the property so that it would accommodate thirty-five guests, equipped it throughout, installed excellent water supply and sewer systems, and then placed the entire service at the disposal of the Government in 1918. The armistice came, however, before the Government could take advantage of the proffered service, and the buildings were not used until the summer of 1919, when the Vacation Association of New York was permitted to occupy them without charge.

The buildings were formally opened by the board of trustees, as the Valeria Home Summer Camp in May, 1920, and announcements were sent out to all hospitals, nurses' clubs, and social workers' organizations, that the Valeria Home Summer Camp was prepared to receive as guests, women, preferably nurses, social workers and teachers, who needed rest in the country and were able to pay a small charge. In order that the service might be partly self-supporting, as Mr. Langeloth directed, the board of trustees approved a schedule of charges ranging from \$1.00 to \$1.50 per day, according to the accommodations chosen by the guests. Needless to say, this offer at such ridiculously low rates was promptly taken advantage of by nurses, social workers, teachers, and business women, and from the opening of the

service on May 15, to its close on January 1, over five hundred women have been entertained at the Summer Camp for periods varying from a day or two at week-ends and holidays, to two weeks or more. The trustees did not wish to give the Summer Camp the appearance or atmosphere of a hospital or sanatorium, so no guests were accepted who required special medical or nursing supervision. Particular pains were taken also to select as guests only women of education and refinement, and all applicants were put to the test. The only other requirement was that their applications for reservation be endorsed by their employers, or secretaries of organizations with which they were identified. A house committee of three members of the board of trustees passed finally on all applications. The wisdom of this careful selection of guests was apparent after very little experience, and as a result of it, a more congenial and happy crowd than was gathered together at the Summer Camp could not be imagined. In fact, the success of the Camp has been so marked, that the board of trustees has determined to continue it in operation through the winter, if possible.

But the Valeria Home Summer Camp, interesting as it is as an experiment in practical philanthropy, is only a first step in the development of the broad pro-

gram which Mr. Langeloth had in mind. The board of trustees, realizing from the beginning the difficulty of expressing concretely Mr. Langeloth's wishes, proceeded slowly in formulating its program. The advice of leading physicians and public health authorities was sought, as to the best means of utilizing the funds at the disposal of the board of trustees and an extensive survey was made of sanatoriums, convalescent homes, and health resorts throughout the country. As the result of such study, a tentative program of development has been prepared, which seems to meet the conditions stated and implied by the testator.

The Home to Be Primarily for Recreation

This tentative program calls for an institution for recreation and convalescence, which will appeal particularly to persons of education and re-



The road to the village from the Valeria Home Summer Camp.



The Westchester Hills, looking west from a suggested cottage site.

finement and of moderate means. It should be noted that Mr. Langeloth wished the home to be a place for "recreation and convalescence," and it must be assumed that the order of these two words had a definite meaning. The trustees have, therefore, planned a year-round health resort which will, first of all, meet the needs of its prospective guests for recreation and recuperation in the country, and at the same time provide such special care for convalescents as may be necessary. In other words, prevention of illness is a primary object of the service contemplated. It will be the aim of this service to reach those needing rest and recreation before they actually become sick, rather than to wait until they have passed through sickness to the stage of convalescence.

With this ideal in mind, the board of trustees saw its most practical expression in the establishment of a cottage colony group, rather than a single large building of the usual institutional type. Since the entire project is pioneering, it was determined to begin with a few cottage units, and to expand the service as the demand for service grows, so that many of the mistakes common to institutional planning may be avoided. Beginning then, with six cottages, each housing about twenty-five people, it is the board's intention to make this group the center of a complete self-contained health resort. In addition to the cottages, there will be a central dining room and service building, an administration building, a club house or center of indoor and outdoor recreation, a small infirmary for emergency purposes, and the necessary farm and utility buildings. All construction will be substantial, fireproof, and of a type suited

to the rural environment. As far as possible, native field stone will be used in the construction of buildings. Cottages will be simple in arrangement but comfortably equipped, and designed for all year round service.

Outdoor recreation is, of course, to be fully developed and the site is particularly well adapted to this end. There is ample space for golf, tennis, baseball and other summer field sports, and the lake affords every opportunity for boating, bathing, and fishing. Winter sports, such as snow shoeing, skiing, coasting, skating, etc., will be provided for, and it is hoped that such winter sports may be made a feature of the recreation program. The club house, previously mentioned, will provide for indoor amusements of all kinds, summer and winter.

Preference Will Be Given to Workers

Believing that those who are doing the work of the world are chiefly in need of the kind of service planned, preference will be given in the selection of guests, to men and women of working age, that is, over sixteen and under forty-five. This does not mean that persons under sixteen or over forty-five will be excluded from the Valeria Home, but only that where preference is necessary, persons between these ages will have first opportunity.

From its study, the board of trustees is convinced that less opportunity for rest and recuperation is now offered to men than to women, in institutions already established, so an effort will be made to make the home as attractive to men as to women. It is hoped that men and women can be



The old-fashioned garden at the camp.

given full opportunity for frank companionship, and mutual enjoyment of outdoor life, under much the same conditions as are found in a well conducted club or hotel. No great difficulties are anticipated on this score, since the original condition laid down by Mr. Langeloth that guests shall be persons of "education and refinement," will be rigidly adhered to. It is realized that all educated persons are not refined, nor are all refined persons educated, but careful selection of guests on the basis of character will, it is believed, accomplish the desired result.

It is not the intention of the board of trustees to limit the Valeria Home service to any special or professional group, or to those having a particular type of physical or mental disability. Each application for admission to the home will be decided on its merits after proper investigation. Convalescents, or those physically or mentally exhausted, who require only rest, good food, sunshine, fresh air, and recreation, and employment



The beautiful maple trees in front of the present building.

suited to their strength will be accepted, if otherwise eligible, but no person will be received who requires constant rest in bed or special medical or nursing supervision. No tuberculous patients will be received, nor persons suffering with any other disease in communicable form. Since some reasonable limitation of length of stay of guests is necessary, persons suffering with chronic or incurable diseases will be accepted only when the condition demands particularly the type of care which the Valeria Home offers, and then only for a limited period. Such special therapeutic devices as experience may prove to be useful will, no doubt, be provided, but chief reliance will be placed on Nature's therapeutic agents, applied in her own laboratory.

Since it is expressly required in Mr. Langeloth's will that the home shall "as far as may be feasible, be self-supporting," guests will be required to pay weekly charges. Such charges will, however, be moderate, well within the means of the guest, and adjusted to suit each case. All guests, no matter what they pay, will have equal privileges, and, as far as possible, equal accommodations. A tentative maximum rate of twenty dollars a week has been approved by the board of trustees.

The firm of Delano and Aldrich and Charles H. Higgins of New York City, has been chosen by the board of trustees as architects, and construction will be started as soon as their plans have been approved. It is expected that some at least of the buildings will be ready for occupancy in the spring of 1922. In the meantime, however, the present Valeria Home Summer Camp will be continued, although plans for the work of the Summer Camp of 1921 have not yet been worked out in detail. It is probable, however, that the work will be confined, in the coming year, as during the present year, to providing rest and convalescent care for business and professional women. On the completion of the larger institution, the Summer Camp will be used as an auxiliary service under the same management.

THE PAY-PATIENT ACT IN OHIO

A report has just been made of the amount of money which has been collected by the state of Ohio since the pay-patient act became effective in 1910. The total amount is \$3,659,415.20. Receipts for 1919 were \$606,114.12, distributed as follows: for the care of the feeble-minded, \$305,071.40; Mount Vernon Sanatorium, \$9,351.36; all other receipts, \$291,691.36. For the care of the feeble-minded, individuals paid \$20,775.84, and the counties paid \$284,295.56. At present the collection of the fund is under the Associated Charities, but the next legislature will probably consider changing the measure so as to have the work under the direction of the State Board of Administration.

BETTER FINANCIAL SUPPORT FOR HOSPITALS

By MR. J. J. BANFIELD, MEMBER OF THE BOARD OF DIRECTORS, GENERAL HOSPITAL, VANCOUVER, B. C.

THE study of our hospital problems today is not only interesting, but indeed intricate, affording very extensive scope for deep thinking and clear vision. Analysis of the situation the world over, reveals the fact that present policies of efficiency and financing must be reorganized. Finances are not keeping pace with the increased cost of efficient service as demanded by the populace, a service much superior to that of ten years ago. Hospitals today, indeed, are recognized as a most valuable asset in the community and must produce results regarded as efficient. No longer will good old philanthropy meet our needs, and a more substantial revenue basis must be found immediately. We cannot allow efficiency to wane; our hospitals must have experts in every line. They must have highly specialized diagnostic and treatment facilities, and all that is necessary to assist in restoring our people quickly to productive capacity and a self-supporting status. Out of the chaotic state of hospital finances at present some concrete scheme must be evolved to provide adequate means of giving every patient, whether pay, part pay, or charity, expert care. This care must include every possible means for good diagnosis and treatment—either special or ordinary, as needed.

Obligation of the Patient and the Hospital

There are three parties to be considered—the patient, the hospital, and the state. These are closely interrelated and interdependent one on the other, and each have certain obligations to meet. The patient's obligation is the simplest, and is usually fulfilled more or less naturally, inasmuch as he must submit passively to the hospital and doctor for treatment, and must have confidence in them. The present system which prevails, to a certain extent, holds him responsible for paying his hospital bill. The hospital's obligation is to provide this patient with a service that will bring him back to the best physical condition possible in as short a time as it can be accomplished.

Finally, we come to the obligation of the state,

Finances in the hospitals today are not keeping pace with the increased cost of service demanded. As efficiency cannot be impaired, the only solution is to find a more substantial revenue. Establishing machinery for keeping the community in good health is one of the obligations of the state. As this fact is realized the upkeep of hospitals comes more and more to be recognized as a responsibility of the state, which can no longer remain dependent upon endowment or charity, or both.

A possible solution of the difficulty is the levying of a hospital tax, which would distribute the burden of hospital cost in a more equitable way than it is at present.

which is not yet fully realized as such. The state must supply the funds, or the organization for getting them, for establishing such machinery as will give good health to the community. This obligation is what concerns us, to a great extent today. The state today recognizes the value of the individual to the community from a productive standpoint; while the individual does not exist for the state, there is a recognized

duty or obligation of the individual to the state, and the state to the individual, particularly along health lines. The state must extend its support to the preservation of public health, and so enhance the value of the individual both to himself and to the community, since his productive ability is in direct ratio to his health. Those who are interested in hospitals notice a great change in sentiment towards these institutions in the past few years. There is more community interest and less destructive criticism, and it is generally considered that hospitals cannot carry on their work effectively if they have to depend for support on endowments or charity. They must be financed in an organized way so that each individual member of the community will contribute to their support.

The hospital has several functions to perform, which might be enumerated as follows: first, remedial: involving the cure or relief of patients; secondly, educational: including the training of doctors, nurses, attendants, and orderlies; thirdly, preventive: including the educating of the patient and the public to better health habits, and establishing various laboratories and other facilities for preventing sickness; fourthly, scientific: including investigation, research, and the contribution of knowledge of medical science.

Thus it is seen that the hospital of today must contribute a great deal to the national life of our country.

Remedial Function

In the care of the sick the hospital must have various departments, all manned by experts, and provided with the best type of equipment obtain-

able. Now we find that such facilities are accessible to and used mostly by two classes—the very wealthy, and the very poor; the wealthy because they have the money to avail themselves of the opportunity, the poor because they receive assistance from the state or some philanthropic organization. But there is a worthy self-respecting class between these two, whom we cannot disregard. They represent the mass of taxpayers, and, in many instances, the financial demands on this class being greater than they can bear, their medical requirements are neglected. This may often mean loss of time to the breadwinner, or the impairment of his children's health. A solution for such a condition may be found by making this care free to all. Every citizen should have the right to an efficient diagnosis and proper treatment including general ward care, provided free of charge so far as the hospital is concerned. Anything in the way of luxuries should be provided by the patient himself. Such an arrangement would mean the prevention of disease, and a great reduction in life wastage. It would not only lessen future hospital work, but other state activities, which are now maintained at great cost. Therefore, let us have all the facilities of a Class A hospital and have them accessible to everyone.

Educational and Preventive Functions

Another task of the hospital today is educational. It must help to equip doctors for the best service, add to the fund of medical knowledge, and train nurses, attendants, and orderlies. By acting as a training centre for all these useful classes of citizens, the hospital fulfills one of its important obligations. There are today many advocates of preventive medicine, and there are many ways in which it has been used. The hospital can give practical demonstration of some of these ways, and thus educate the patient and the public. Indeed, the institution should stand in the community for the dissemination of the health gospel. The social worker and the welfare nurse teach the people in their own homes how to live and how to keep well. The hospital laboratory with its health section safeguards the community against epidemics. In several ways, therefore, the hospital enters this great field of preventive medicine so interesting to the whole world.

Scientific Function

Finally, the hospital is the great laboratory research for medical science, where better means of diagnosis and treatment are discovered or worked out. Medical science is today far from being complete, and we know of various diseases that are yet far from being conquered. The hospital affords wonderful opportunities whereby

with scientific observations and tests much can be adduced, and in so doing, the institution is not alone serving the community, but the world at large.

State Aid in British Columbia

In order to make the arguments in this paper more concrete and more comprehensive, we trust that you will pardon specific reference to our own province of British Columbia. There is no doubt that possibly conditions now existing in the province of British Columbia are similar to those in other provinces of Canada and states of the Union, and believing this to be true, specific reference to our own province may be helpful in the presentation of this subject. Throughout our province there are great financial demands on the government and municipalities for hospital purposes, but, though the amounts are large in some cases, they are not sufficient. The support from the government to the hospitals of the province today is based on an estimate of per capita grant on a sliding scale, running anywhere from forty-five cents to one dollar a day.

The larger hospitals offering the best equipment and service and having a great many more days than the smaller ones, are, therefore, securing less *per diem* than the smaller hospitals. In other words, large hospitals, offering superior equipment and service, are apparently penalized for doing good work, and are losing money on every patient. The large amount of non-pay work, in many instances, produces every month a deficit.

The individual being the most valuable asset of the state, financial requirements for his betterment should come first. At present, however, the state does not place the individual's welfare first, for it does not contribute sufficient per day to maintain a public ward patient.

Hospital Tax Proposed

For some time negotiations have been carried on with the government of our province concerning the broadening of taxation, and the last two or three years it has been considered very seriously. Today a health tax is being discussed, and, we, as hospital people, will propose a hospital tax which would distribute the burden of hospital cost much more equitably than it is at present. There would be no extra burden placed on the government, it would merely enact the legislation for the tax. In our province there would be little opposition to the scheme of a hospital tax built on a budget, the basis to be a *per diem* cost per patient, including the cost of diagnosis, board, nursing, special or ordinary treatment, with a general ward service. Such a tax would meet our

requirements for hospital maintenance, and would insure to the individual personal care in a public ward, or if he desired different accommodation, would be placed to his credit. In order that the state may accomplish the greatest good, it should thus assume all financial responsibility in connection with the maintenance of hospitals. It can do this by placing a direct tax on the public for that purpose—a tax say of six dollars a year to be exacted from all persons whose yearly income is six hundred dollars or over. The necessary expenditure for buildings and equipment should be the responsibility of the municipalities so that automatically the municipalities would become the owners of the buildings, and would keep completely in touch with all affairs of business connected therewith. Let us suppose the province will have this year approximately 600,000 days' treatment, at an estimated cost of \$3.00 per day, or \$1,800,000. Estimating our population at the present time and considering the recent increases, we are safe in saying that fully 300,000, between the ages of eighteen and fifty, should be taxable for this \$6.00 per year. There is no better type of health insurance, from a hospital standpoint, than such a scheme as this.

Speaking for the Vancouver General Hospital, with which I am connected, last year our non-pay work amounted to over \$150,000, while the great increase in wages, cost of foodstuffs, and supplies also added to our expenses. Hospitals, like schools, are justly a state charge, and to meet this charge it is fair and reasonable that all citizens should contribute. Indeed, hospital trustees and directors would welcome the inauguration of a tax to provide the revenue to carry on their work efficiently. At the present time, no doubt, the cost of providing for the sick is excessive and the provision inadequate. We know that a large number of our hospitals in this province are not equipped with the necessary facilities. Others have such facilities, but their charges are of necessity high, and the greater number of patients cannot afford to take advantage of them. Therefore we find that such special advantages belong only to the two classes of people already mentioned, the very rich and the very poor. Many persons may forego some test which might materially enlighten the doctor on the diagnosis, and possibly avoid an operation, or even save a life. Many such instances can be quoted from any hospital. The ultimate result is that the patient probably suffers from a more protracted and complicated illness. When we scan the development of medical science during the past four years, and follow our soldiers from time of enlistment until civil re-establishment, we find the highest grade of efficiency in all our medical service. This was

due to the accessibility of all the special facilities, whether diagnostic, curative or preventive. The medical record of this war is unsurpassed in the world, and we could do well in our civilian days of peace to follow the army principle.

Location of Hospitals

In this province we have approximately one hundred hospitals, of which possibly seventy are receiving government support. The location of the hospitals is usually influenced by various factors, such as the population of that section, the industries located there, and the transportation facilities. These, of course, are essential and important factors, but we find that there is no definite plan of service laid down for the institutions. While every outlying hospital should be able to cope with all emergencies or accidents, medical cases and maternity cases, there are a great number of cases which should be transported to the larger centre, where there is concentration of facilities and specialists. Adequate provision for such cases is seldom made.

However, I think there is one disease that should be considered more from a national than a provincial standpoint, and this is tuberculosis. The charges on our provincial and municipal governments to maintain hospitals for tuberculosis should be removed from them to the Dominion Government, and these hospitals placed in the localities most favorable to the treatment of this disease. We are told by medical science that climatic conditions play a large part in the treatment of tuberculosis, and it seems only right that our whole Dominion should be considered, as to where the best place is for such institutions. This naturally might bring it beyond the confines of the patient's own province.

State Inspection of Hospitals Important

The government of our province is spending annually over \$1,500,000 in connection with health institutions, and we are glad to see that it is checking up the measure of service and results obtained from this expenditure, through a hospital inspector recently appointed. This inspection is very important and should be done intensively—much in the same way that our schools are inspected. Inspection not only checks up inefficiency, but brings enlightenment to many hospitals struggling with problems.

Some objections will arise, no doubt, to this scheme of a hospital tax, but I think they are all readily answered. It has been stated from several quarters that such an arrangement would mean a very great influx into the hospitals, requiring a rapid extension of facilities. In our province we have disproved this objection already

in connection with the Workmen's Compensation Act. We find there has been no trouble whatsoever with patients over-anxious to come to the hospital or remain any longer than necessary. This can all be regulated by organization; indeed, in our own institution, where we have over one thousand patients, a check-up is made every day in the year to see who should be discharged, and there has been no trouble in keeping our wards clear of unnecessary patients. The question of revenue for capital expenditure and new buildings, would have to be delegated to the municipality, each one making provision for its own extension of facilities.

Standardization and Economy Needed

There is, indeed, need for standardization today. Hospital equipment and supplies are exceedingly diversified. What efficiency could be gained and money saved if we would all agree to a uniform service and uniform equipment in our institutions. All hospital work has in view the same purpose, and by standardizing their service the hospitals could guarantee to the patients that this service would be carried out. It is most difficult to have every hospital equipped for everything, but all hospitals should be able to handle all medical, obstetrical, and a greater portion of the surgical cases. Where the work on a surgical case is of such major character as to require special equipment and the service of specialists, the case should be handled as suggested in a larger center.

Summary of Recommendations

The statistics of this province show that one person out of every ten goes to the hospital during the year for treatment and will stay in the hospital on the average of from one to twenty days. Such being the case, the scope for this work, along the lines we are discussing, is sufficient to warrant the best methods in carrying it out. Therefore, I would ask for a better financial basis for our institutions; a more efficient and more accessible medical service to our patients; a better hospital organization; greater economy both in finances and in energy, through consolidation and cooperation; better hospital research, both along technical and administrative lines; and more extensive hospital scrutiny and inspection throughout the province.

I would recommend: first, that we have standardized hospital service for each community, to be decided upon according to the needs of the hospital area selected; second, that we make such service free to every patient so far as the general ward is concerned, with all possible means for diagnosis and proper treatment; third, that we put all hospitals on a reasonable and business-like

basis; fourth, that a hospital commission for the province be appointed; fifth, that a director of hospitals be appointed to have inspection over all hospitals, and be the executive head responsible to the hospital commission. The boards of trustees and directors would remain as at present.

This would mean that there would be no disturbance in the local management of our various hospitals, but they, through their executive head or superintendent, would be responsible to the commission through the executive officer of the province. The business director or manager would have oversight of all the financial affairs of our hospitals. The director of medical affairs would inspect the quality of the work done and the efficiency of the medical service throughout. The director of nursing affairs would likewise control all nursing matters. In this way there would be no chance for inefficiency. These three officers would be responsible to the chief executive officer, who, in turn, would be responsible to the hospital commission.

In conclusion, let me say I have endeavored to place before you, though very inadequately, a few of the salient facts which are known to us all throughout the provinces of Canada and the states of the Union, and I have tried to make a few suggestions as a basis, possibly for future action or change. A scheme might be deduced from these remarks which would relieve our financial troubles, increase the efficiency of all our hospitals, and finally be a great economic factor in the administration of a public service.

POSSIBLE TO PROLONG HUMAN LIFE

It is possible actually to prolong human life by increased attention to matters of public health. This is shown by figures in several countries. The average duration of life in India is less than twenty-five years, in Massachusetts forty-five years, in Denmark fifty-one and seven-tenths years, in England and Wales forty-five and nine-tenths years. In Geneva, where records are available for the past three centuries, the sixteenth century shows an average of twenty-one and two tenths years, the seventeenth is twenty-five and seven-tenths years, the eighteenth thirty-three and six-tenths, and the nineteenth thirty-nine and seven-tenths years. Thus it is shown that definite conditions alter the length of human life.

GETTING INFORMATION ABOUT PATIENTS

Not infrequently it is rather difficult to obtain information as to why patients have been taken to a psychopathic hospital, but in Chicago this is not true. However, the Chicago State Hospital found that there was often a delay of several weeks before the information could be obtained, and this seriously held up the case. So a scheme was devised by which the chief of social service spends one day, usually the day the patients are presented before the court, at the psychopathic hospital, and in this way the information is often obtained on the day following the admission of the patient.

BETTERING THE FOOD SERVICE IN HOSPITALS*

BY HERBERT O. COLLINS, M.D., ST. PAUL, MINN.

THE purchase, storage, preparation, and serving of the food in a hospital presents difficult and complicated problems. Poor service in this line may be due to lack of interest and understanding on the part of those responsible for it; poor or insufficient equipment; badly planned kitchens, pantries, or store rooms; poor marketing facilities; or incompetent or badly organized help. Food service is too often left to the control of insufficiently trained or indifferent persons, who naturally fall into the habit of doing things the "easy" way, if not constantly and intelligently supervised.

There is no department of the hospital in which results depend more upon intelligent study and good executive work than in the dietetics department. Upon the proper handling of this work depends the solution of many important problems, including those of economy or waste, pleased or displeased patients, an enthusiastic staff or its reverse, and contented or discontented employees.

The preparation and serving of the food in a hospital differs from that in a hotel or restaurant, chiefly in that in a hospital it is necessary to prepare for a greater variety of needs. Every gradation, from the highly specialized diet in the metab-

olism wards, to that more suitable to the needs of the fireman who shovels tons of coal into the furnaces daily, must be taken into consideration.

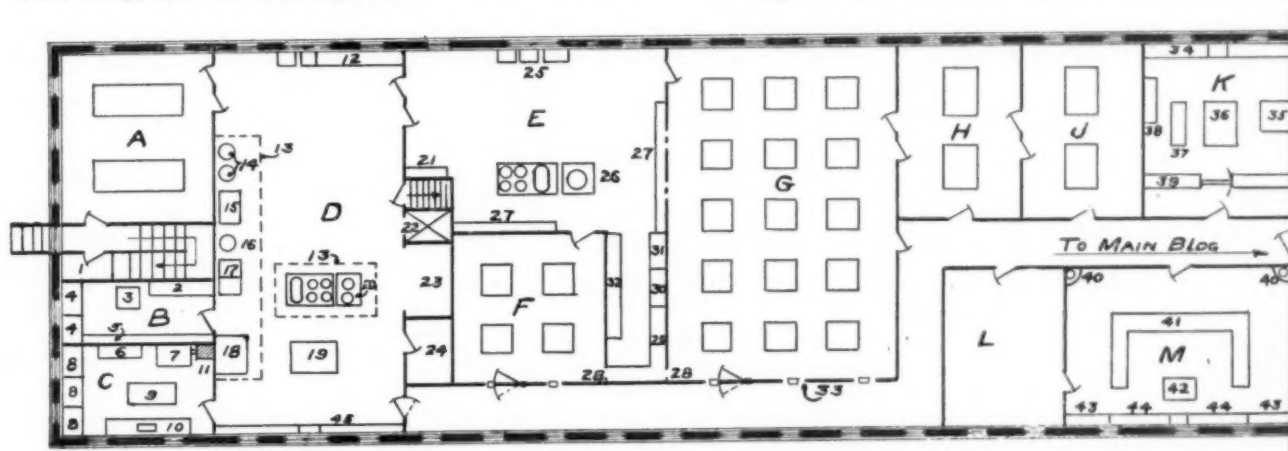
We cannot afford to close our eyes to the fact that, to most of us, properly cooked meals, nicely served, means more than rightly selected "food values." When there are complaints from either our patients or employees, scientifically worked out tables, showing the number of calories contained in each improperly prepared or poorly served meal, will not always be convincing.

Importance of Kitchen's Location Emphasized

The problem of planning and equipping a hospital kitchen will vary considerably with both the size of the hospital and the class of patients it cares for. In a small hospital it is often best to locate the kitchen on the first floor of the building, preferably in a wing which can be fairly well shut off from the rest of the building. In the very large institutions a separate building, connected with the main hospital buildings by suitable passage-ways, will often be found preferable. The class of patients to be cared for, especially as to whether they are to be public or private, children or adults, will need to be considered in the selection of the equipment.

Though all the food served in a hospital is not

*This is the first of a series of articles on hospital food service which will appear in THE MODERN HOSPITAL.



Plan of a kitchen and dining room unit, for a one hundred bed hospital.

- A. Employees' dining room. B. Cook's supply room. C. Pastry bakery (including desserts). D. General kitchen. E. Cafeteria. F. Interns' dining room. G. Pupil nurses' dining room. H. Staff nurses' dining room. J. Dining room for special nurses and night nurses. K. Special diet kitchen. L. Dietitian's office. M. Class room for teaching dietetics.
1. Women employees' coat room and toilet (men's toilet in basement). 2. Cook's refrigerator, (for emergency supplies and

leftovers only; main cold-storage in connection with the main store room, not shown). 3. Meat block. 4. Bins. 5. Shelving or cupboard. 6. Pastry rack, (on wheels). 7. Oven. 8. Bins. 9. Work table. 10. Counter, with sink. 11. Flue. 12. Shallow and deep sinks for washing utensils, with counter; racks or shelving above. 13. Hoods over range, kettles, and steam table. 14. Jacketed kettles. 15. Vegetable steamer. 16. Potato peeler. 17. Deep sink and counter, for preparing

vegetables. 18. Range. 19. Cook's work table, (sauce-pan rack above). 20. Steam table and coffee urn (dish warmer below). 21. Cafeteria refrigerator. 22. Freight elevator to basement. 23. Storage alcove for food cans. 24. Mops, brooms, and cleaning materials. 25. Toaster, pan-cake griddle, and hot plate. 26. Steam table and coffee urn, (cup-warmer beneath). 27. Serving counters, to nurses' and interns' dining rooms. 28. Pass-ways for soiled dishes. 29. Soiled dish counter, for the

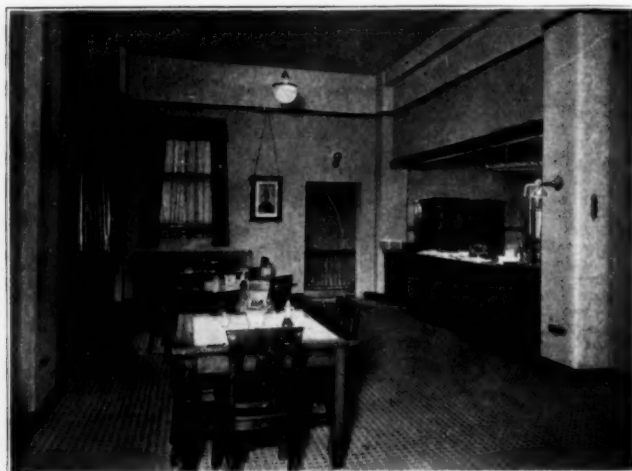
nurses' and interns' dishes only. (Patients' dishes to be washed elsewhere). 30. Dish-washing sinks or machine. 31. Clean dish counter. 32. Dish cupboard. 33. Rail or low partition, giving light and ventilation to dining rooms. 34. Counter, with sink. 35. Range. 36. Work table (wood top). 37. Tray rack (on wheels). 38. Refrigerator. 39. Counter, with gate. 40. Lavatories. 41. Counter for students in dietetics. 42. Demonstration table. 43. Cupboards or shelving. 44-45. Counters, with sinks.



Counter and kitchen of a cafeteria suitable for a small hospital.

cooked in the general kitchen, the major portion is, and the work of feeding the hospital is centralized there. As a rule, the meats and coarser vegetables, as well as the meals of the nurses, interns, and employees, are cooked in this kitchen. Its proper location naturally becomes a matter of importance and it should be located with reference to easy delivery of supplies, quick and easy delivery of cooked food to wards and rooms, and to the nurses', interns', and employees' dining rooms, provided these dining rooms are to be served from the general kitchen. It must be conveniently located for supervision, with proper relation to the special diet kitchen, store room, and the cold storage rooms. It should also be capable of being well lighted and ventilated, without disseminating the odors of cooking throughout the hospital.

It too often happens that not enough study is devoted to these questions by architects, and others interested in planning the hospital buildings. The result is that we frequently find the general kitchen placed in some inconvenient loca-



The cafeteria dining room adjacent to the service counter shown above.

tion, perhaps in the basement, where it is difficult to give it its proper supervision or to properly light or ventilate it, and from which the delivery of food is so inconvenient that meals reach the patients' bedsides in a cold and unpalatable condition. From kitchens so placed the odor of food often permeates the whole hospital atmosphere, a condition especially to be avoided in a hospital, in which the appetites of those to be fed are most easily affected.

All the above requirements are not easily met, but much can be done along these lines by a little study and planning. The basement kitchen is especially to be avoided, as having nothing in its favor, with the possible exception of economy in the original construction of the hospital. This will seldom be found sufficient to justify disregard of the disadvantages, and the basement space can usually be used to better advantage for other purposes. The question will generally resolve itself into a choice of location on the first floor, preferably in a wing that can be pretty completely shut off from the main building, and the top floor; for the smaller and medium sized hospitals. For the very large hospital, a kitchen unit in a separate building will merit consideration, for it has many advantages.

Each of these locations has its enthusiastic advocates among hospital executives, and each has its own advantages and disadvantages. The first floor location has in its favor accessibility, convenience to store rooms, easy supervision, and quicker delivery of food to the patients, and to the various dining rooms. These are all important points in its favor, and should be fully and carefully considered by those who are planning new kitchens. On the other hand, a kitchen here is more difficult to light and ventilate, and the odors of cooking will escape at times to other parts of the building, and the noise which is unavoidable in the handling of utensils, will often disturb the patients. Its very accessibility, while a point in its favor, will also be found something of a disadvantage, for employees and trades people having no duties in the kitchen, should find nothing to encourage their entering there at any time. They not only interfere with the work, but supplies have, at times, a tendency to disappear when the kitchen is too handy of access to those not connected with it.

To overcome some of the objections to a ground floor location, the kitchen is sometimes placed on the top floor, or even in a deckhouse on the roof. Advocates of this location claim that it reduces the liability of the odors of the cooking getting to the patients' rooms, and that it can be better lighted and ventilated. While such arguments are

sound, it will probably be found that the disadvantages of this location outweigh the advantages, and the roof or top floor kitchen is not as popular today, either in hospitals or hotels, as it was a few years ago. Practical experience has demonstrated that it greatly increases the labor of delivering supplies to the kitchen, and returning ashes, garbage and other refuse from it. In addition, if the dining rooms are placed on the same floor, there is confusion and loss of time on the part of nurses and others of the hospital personnel, who are compelled to use the elevators three times a day to reach their meals. The same difficulty has been found in transporting the patients' food from the kitchen to the wards, the additional delay, caused by the necessity of bringing the food cars down from the top floor, resulting in more poorly served trays and colder food. Part of the difficulty can be overcome by locating the dining rooms on the first floor and using dumb-waiter service to connect them with the kitchens. But this will seldom prove satisfactory, as delays are sure to occur at times, and dumb-waiters have a decided tendency to get out of order at critical moments.

Much, however, depends on the general plan of the hospital, and the location of the general kitchen will need to be considered in conjunction with the whole hospital plan, with due regard to the advantages and objections in connection with each location.

Size of the Kitchen Should be Studied

The size of the general kitchen will naturally depend on the size of the hospital, and will also be affected by the work that is to be done there. It will often be found to be advantageous to have a special room connected with the kitchen for the storage and preparation of vegetables, and one for pastry baking, if there is no bakery in the hospital. A small room, especially designed for the washing and storing of utensils, opening directly off the kitchen, or in a distinctly separated alcove of it, will be a great convenience, if it can be obtained. Much space can be saved in the kitchen proper, by removing such operations from its floor. On the other hand, ample floor space must be reserved for the necessary equipment, for the loading of food cars, etc., without causing inconvenient congestion or interfering with efficient work. It should also be borne in mind that when additional beds are added for patients, it is not always practical to enlarge the general kitchen to a corresponding extent, and its work suffers in consequence. It is important, therefore, that ample space be provided for the immediate needs when the hospital is built, and that a limited amount of future growth be antici-



An efficiently arranged diet kitchen.

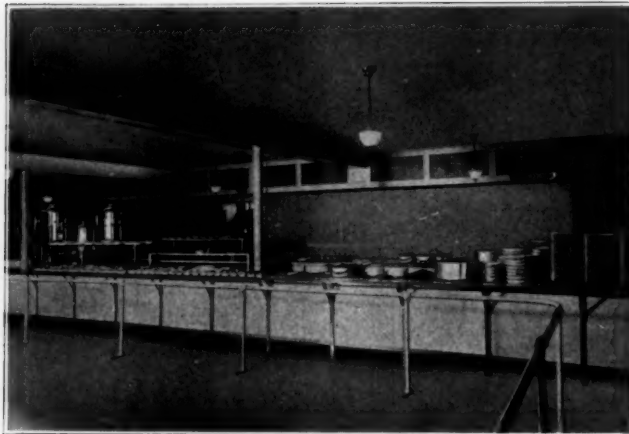
pated. While too small a general kitchen will always be regretted, it is also possible to go to the other extreme and have too large an area of unused floor space, causing many unnecessary steps.

The problem of delivering hot food to the bedside of the patient is one of the most perplexing in connection with the food service, and will be further discussed later. But, since the first step in this must be taken in the kitchen, it is important to see that this department is supplied with the proper steam tables and dish warming ovens, or with other facilities for keeping the food hot while waiting for transportation or serving.

If a steam table is used it should be placed where it can be easily reached from the range, and also from the kettles and steamer in which the vegetables are cooked. It should also be located so that food cars can be conveniently loaded from it. There is some advantage in having at least a portion of the steam table especially constructed, so that the food containers belonging to the food cars fit into it, and can be filled and kept hot till ready for transportation. This saves one handling of the food.



The main kitchen of the Chicago Lying-In Hospital, showing compact yet efficient arrangement of equipment.



A cafeteria suitable for a large hospital.

Supplies for the kitchen are best kept in stock in the general store room of the hospital, and issued to the kitchen in comparatively small quantities, as needed. This prevents waste, and most supplies can be better cared for in a store room or root cellar, than in the kitchen itself. There should, however, be provision in the vegetable room of the kitchen for the storage of enough of the coarser vegetables to make daily delivery unnecessary. A reasonable stock of small canned goods may also be carried in the cook's supply room for emergency use, and proper provision for their care should be made.

The plan of the general kitchen will be somewhat affected by the method adopted for the serving of the food to the nurses, interns and employees. The diagram on page 117 illustrates a suggested floor plan of a kitchen and dining room unit, suitable for a hospital of about one hundred beds, in which pupil nurses and interns and such of the hospital officers as take their meals at the hospital are served by the cafeteria system. The help is served in the employees' dining room, "family style." The advantages and disadvantages of the cafeteria system will be more fully discussed in a subsequent article.

Food cars, carrying food to the wards and patients' rooms would, in this plan, be loaded from the steam table in the general kitchen, lowered to the basement on the freight elevator, passing through a basement corridor to the proper elevators in the main building, and thence to the ward diet kitchens. Their passage through the congested corridors leading past the dining rooms is thus avoided, and the slight time used in lowering them to the basement level will be more than made up by the clear road they will gain. If, however, the plan of the building permits, there is some advantage in providing a direct passage from the kitchen to the elevators going to the diet kitchens on the wards, without

using the basement. But food cars should be routed to keep them out of congested or public corridors as much as possible.

Special Features of Construction Important

Whenever it is possible the kitchen should have windows on at least two sides, preferably opposite, to insure proper lighting and ventilation. If windows can be obtained on three sides it is still better. Sky-lights should be avoided when possible, as being of little use except for ventilation; they become hot from the strong sunlight, and are liable to cause condensation of the moist air on the cold glass and consequent annoying dripping. Ventilating fans should also be avoided, if designed to draw the air into the room. But one or more good sized exhaust fans properly placed will be found invaluable in ridding the kitchen of steam and odors, when necessary. If such fans can be connected with the hoods over the range, the steam table, and the steam kettles, and the vegetable steamer, they will be found a source of great satisfaction.

The artificial lighting should be ample, as the kitchen will often be used when it is dark, in the evening and in the early morning. The lights should be so placed as to properly illuminate the room without throwing annoying shadows upon the work. They should be located so as to light the range, the cook's table, the steam table, and all machines which are liable to be used when artificial light is needed.

Too much care can hardly be given to the selection of plumbing fixtures, and to their installation. All fixtures, when possible, should be set some distance from the wall, in order to prevent harboring vermin in the cracks behind them, and should be installed in such a manner that easy access can be had to the pipes and other parts for repair. Suitable valves should be placed upon the supply pipes running to each individual fixture, so that the water can be shut off while repairs are being made, without interfering with the rest of the building. It is a good plan to have all transverse pipes installed about two or three feet from the floor. All water faucets should be of some type easily and quickly repaired by the hospital mechanics.

It will be found of great advantage to cover the wall back of each sink, as well as of all other fixtures supplied with either water or steam, with tile, marble, slate, or other impervious material, set flush with the plaster, unless the entire room is wainscoted with such material. The plumbing should be of the open type, i. e., with all possible pipes exposed for easy repair. Pipes made of metal, which require much polishing to keep them

in presentable condition will be found a source of much avoidable work, annoyance, and expense. Iron pipes, covered with an aluminum bronze, or a good enamel of a color to match the walls, are very satisfactory, and less expensive both for installation and care.

Counter and table tops may be made of wood, well seasoned and so put together that they may be guaranteed not to warp, or of steel, marble, slate, or soapstone. Wooden counters or table tops, covered with sheet metal, are not durable, as the metal has a tendency to buckle with the shrinkage of the wood. The sectional maple tops have been found preferable for the wood topped tables, but tables with solid steel tops are desirable for certain purposes, especially for use near the range, where hot utensils are likely to be placed on them. Either slate or soapstone makes a desirable counter top, or the sectional maple may be used here also.

Tile Probably the Best Floor Material

There is almost as much latitude in the selection of the best material for the kitchen floor as for the floors of the other parts of the hospital. Linoleum will seldom prove satisfactory, owing to the difficulty of getting water-tight joints. Terrazo is liked by many, and looks well when new, but it is porous, and is almost certain to develop cracks which are not easily repaired. Slate, set in large blocks, (ten or twelve inches square) makes a very desirable floor for a kitchen, and has the advantage of being easily cleaned and repaired. Objections to it are found in its black color, and that it is likely to become slightly slippery when wet. Probably the best floor is made of tile. This may be obtained in a grey color which is very attractive. The surface should be smooth, without any suspicion of glaze, and yet have enough grit to prevent it from becoming slippery. But the cost of tile will be a valid objection to it in many hospitals. The red quarry tile is liked by many people, and is cheaper than that referred to above. It should be set with closed joints.

If economy in the selection of a floor material for the kitchen is necessary, a very good and sanitary floor may be obtained by using cement, if it is properly laid. As it is usually laid, however, it will not be satisfactory. Under the common method, the foundation or "grouting" is prepared for the finishing surface simply by sweeping and washing it off, sometimes with a small amount of acid in the water, to cut and freshen the surface. When prepared in this way the surface coat is very liable to crack and separate from the foundation. A better method is to insist



A class room for teaching dietetics to nurses.

that the surface of the grouting be gone over with an air chisel, or some similar tool, so as to chip off and renew the entire surface before the finishing coat is laid. If then the finishing coat is made of equal parts of sand and cement, and laid about an inch and a half thick, troweled smooth, a good and lasting floor will be obtained. The surface should be further finished with one of the reliable cement hardeners, and can finally be made attractive by painting with a good cement paint, if desired. The paint will gradually wear off in spots, requiring renewal; but even after this has occurred it will be found that the surface of the floor will remain smooth, hard, and sanitary. Such a floor is really very satisfactory, and much cheaper than the others mentioned.

Kitchen walls should have all corners rounded, and should be so built as to be easily cleaned and not liable to chip and scar. If the plaster is finished with a surface of Keene's Cement it can be rubbed till it is almost as hard and smooth as glass, and this, when finished with a good enamel, makes a cleanable and durable wall. If possible the entire room should be wainscoted, preferably with tile, set flush with the plaster in order that no edge may be left to collect dust. The base should have a cove where it joins the floor.

All doors and door frames should be protected from marring by trucks and in other ways, by metal plates extending at least two feet from the floor. Hardware should be of a substantial type, preferably with a finish which will look well without requiring polishing. All doors to supply rooms, as well as to the kitchen itself, should be equipped with good locks.

Health is free—recreation and a contented, happy disposition will help to get it. The whole out-of-doors is charged with oxygen—it is all yours.

PREVENTING HOSPITAL FIRES *

BY H. W. FORSTER, BOSTON, MASS.

Public Alarm Connections.—Wherever public protection is available for hospitals, a fire alarm box should be installed at the institution so that the department can be summoned without delay. Even where the institution is located some distance outside the range of public protection, arrangements can generally be made to have the department respond in case of fire.

Private Alarm Systems.—If the institution is of considerable size, and especially if a trained fire brigade is organized, a private fire alarm system should be provided with boxes located at advantageous points throughout the property, and with gongs so placed as to be heard by officials and members of the brigade. Certain types of private fire alarm systems can be connected to the nearest city box so that the operation of any one of the private boxes will also send the alarm to the city department. When drills are held, the connection to the city box can be temporarily cut out.

It should be remembered that the most elaborate protective equipment is of little avail if notification of fire is not given promptly. Some of the most disastrous fires in institutional buildings have resulted from delay in sending in alarm. In an orphan asylum fire at Texas City, Texas, six sisters and three children were killed and three servants were badly injured. One hundred little children were in the building at the time of fire, and in the excitement in getting these out, no one thought to send in the fire alarm. A butcher, two blocks distant, finally turned in the alarm, but when the firemen arrived, there was little that they could do beyond holding life nets.

Telephones.—Because of the possibility of error and delay, the telephone method of sending an alarm is unreliable.

Sprinkler Alarms.—Where automatic sprinkler systems are installed, water flow alarms which operate automatically when a sprinkler head opens can be arranged to serve all fire alarm pur-

There are certain things which can be done by every hospital to lessen the fire hazard, the seriousness of which one can hardly realize. Proper fire signaling systems, with public alarm connections, should be installed. Fire drills should be held at least once a month. The only remedies for the type of frame buildings which are very numerous are radical structural changes, or the installation of automatic sprinklers, or both. The radical changes should include subdivision of buildings by fire walls or partitions, enclosure of stairways, elevator shafts, heating apparatus, etc., by fire-resisting material, the protection of basement ceilings by metal lath and plaster, and elimination of shingle roofs.

poses. The great advantage of such a system when properly installed, is that the alarm is given and water is poured upon the fire simultaneously at the very start.

Thermostats.—Where automatic sprinklers are not provided, thermostats or automatic alarm systems, operated by the rise of temperature when fire starts, can be employed to give similar alarm service without, of course, the extinguisher feature. Prompt

notification of fire outbreak is of importance second only to automatic extinguishment.

Notifying Inmates.—The necessity of notifying inmates when fire is discovered will depend largely upon the location and seriousness of the fire and upon the character of the inmates. Sick, nervous, or feeble-minded people should not be alarmed unless there is real danger, but the danger line should be clearly understood and there should be no delay when this is reached. For such persons, the alarm can be given by use of soft-tone bells or lights, and the latter can be used to advantage with deaf inmates. Boxes and gongs in each individual building should be on separate circuits arranged so that when an alarm is turned in from a certain building, all occupants of that building, as well as officials and members of the fire brigade where they are normally to be found, will be notified without alarming the inmates in other buildings.

Fire Drills.—Fire drills are not usually required in institutional buildings, either by law, local ordinances, or institutional rules.

In institutional buildings a large number of the inmates are confined to a certain portion of a certain building. At time of fire their only thought is to get out of the building by the usual way. If this is cut off by smoke, flames, locks, or other obstructions, they are very apt to become panic stricken. The majority of inmates are physically or mentally below normal. Many of them are helpless. Even where this is the case it is often true that throughout the night there is but one attendant to fifty or seventy-five inmates.

Fire drills should be held at least once each

*Sixth and last installment of an article by Mr. H. W. Forster, reprinted by special permission from the April, 1920, Quarterly of the American Fire Protection Association.

month in every institutional building. The details of the drill will necessarily vary with the type of institution. Where the mental and physical conditions of the inmates allow it, they should be instructed regarding action to be taken at time of fire alarm and should be drilled to vacate buildings in an orderly manner without special supervision. Where inmates are mentally defective, the prime need is for cool and competent supervision. With the sick or crippled, physical assistance and reassurance are needed.

The details of fire drills should be carefully worked out and the proper arrangements made to meet all possible emergencies. Ultimately, drills should be held at various times of day and night, and, in certain types of institutions, without notice.

Fire Spread

Most institutional buildings are of highly combustible construction and present large areas with absolutely no provision for checking spread of smoke and fire, which can communicate between floors by means of open stairways, elevator shafts, dumb waiters, clothes and rubbish chutes, and various other openings. The ordinary wood joisted institutional building is a potential furnace, with masses of wood, dry as tinder, enclosed in oven-like walls. The speed with which fire spreads in such buildings is often appalling. Brick or stone walls add practically nothing to the safety of a building with a wooden interior, as has been frequently evidenced.

New Construction.—New institutional buildings should be of fire-resistive construction throughout, and where possible, of but one story in height. Buildings should be separated either by standard fire walls or by at least fifty feet of open space. All floors adjoining buildings should be connected by fire-resistive corridors or by openings through fire walls protected by standard fire doors. In rural communities the general use of one-story buildings is quite feasible, but in the larger cities, where land is scarce, it is necessary to build higher. Every effort, however, should be used to house the sick, the crippled, the blind, the deaf, the insane, and others wholly or partially helpless as close to the ground as possible.

Existing Buildings.—Over 90 per cent of existing institutional buildings are of frame or wood joisted construction. The need, therefore, is for immediate action toward the improvement of these buildings. An intelligent examination of even a limited number of institutional buildings will convince the most skeptical of the present danger.

One four-story wood-joisted building was found

filled with blind children and their teachers. The only protection provided was inside hose, and the water pressure was insufficient to reach the upper floors. A paint shop was located in the basement and rubbish chutes from the basement communicated with upper floors.

A four-story, brick, wood-joisted hospital was found completely filled with bed-ridden patients. Two open stairways led from basement to top floor. All woodwork was old, dry, and heavily varnished. The only men found on the property were the engineer and a visiting doctor. The hospital was managed solely by women, many of whom were physically feeble. In case of serious fire on the lower floors, large loss of life was a foregone conclusion.

The only remedies for such conditions are radical structural changes, or the installation of automatic sprinklers, or a combination of both. It is criminal to place all dependence upon a few extinguishers or fire escapes.

The following type of structural improvements are of value in combustible buildings:

(a) Subdivision of buildings by means of standard fire walls or partitions.

(b) Enclosure of all floor openings such as stairways, elevator shafts, dumb waiters, rubbish and clothes chutes, etc., with fire-resistive partitions and doors.

(c) Construction of fire-resistive floor, walls, and ceiling about heating apparatus.

(d) Protection of entire basement ceiling by metal lath and plaster. This gives considerable protection against fire; sheet metal nailed to joists does not.

(e) Elimination of wooden shingle roofs.

Fire Walls and Partitions.—Sometimes in large buildings it is possible to make fairly effective fire walls of existing walls. Unnecessary openings can be bricked up, walls can be carried through the attic and roof, timbers which originally passed through walls can be cut off so as not to create continuous combustible channels through the walls, and necessary fire doors can be provided. Generally, if improvements of this kind are undertaken, it is possible to do the work in such a way that it will have distinct property saving value, and not merely give somewhat greater life protection.

In some combustible institutional buildings of large area the only proper treatment is to build one or more effective fire walls across the building. Some of the large public and private institutional buildings in the country are hundreds of feet long, the equivalent of five or six floor levels in height, and literally without any semblance of a fire stop either horizontally or vertically. Such

condition in a factory or mercantile property would be considered little short of an economic crime, and it certainly is quite as desirable that the same steps which would be taken in a business building be taken in a building housing hundreds of persons, many of whom are helpless.

Stairways and Elevator Shafts.—In existing buildings where it is not deemed advisable to provide standard fire towers and fire-resistive shafts for elevators, stairs and shafts should be properly enclosed. Expanded metal and plaster partitions, or metal and wired glass, generally are satisfactory for this purpose. The doors leading to the stairs should normally be kept closed and should not be too heavy.

Heating and Ventilating Systems.—Heating boilers should almost without exception be located in a fireproof room, if not in a detached building.

The flues and ducts of heating and ventilating systems provide ready means for rapid spread of fire. Especially is this true where housekeeping is not of the best, as dust and lint are apt to collect in such places very rapidly. All flues and ducts should be of metal or other non-combustible material. Air ducts should never terminate at the attic floor level, but should be carried through the roof. Ducts, flues, and pipes of heating and ventilating systems should be kept clean at all times, and wherever these pass through floors or fire walls, they should be equipped with automatic dampers which, through the melting of a fusible link and the action of closing weights, will cut off the spread of any fire which occurs in or gets into them.

So widespread is the use of motor ambulances, trucks, and pleasure cars at institutional buildings, and so severe are the fire hazards involved, that special attention should be given to the provision of safe storage space. Wherever possible, garages should be isolated from main buildings and should always be of non-combustible construction. Where, as in congested districts of cities, it is necessary that garages adjoin main buildings, they should be of fire-resistive construction throughout, with no direct connection to main buildings. Adjoining buildings should be properly protected against exposure.

Shingle Roofs.—The biggest factor in preventing exposure fire from affecting institutional buildings is to eliminate wooden shingle or other combustible roofing. Shingle roofs are objectionable also because sparks or brands from the chimneys of the building itself may set fire to the roof. No existing shingle roof should be permitted to be repaired extensively with wooden shingles. Various approved forms of fire-resistive roofing materials, weighing about the same as wood shin-

gles, may be installed without appreciable difference in cost.

Legislation, Inspection, and Instruction

Legislation.—But little legislation has thus far been enacted for the improvement of fire protection and safety of life in institutional buildings, and existing requirements are often made indefinite by the use of such terms as "sufficient," "proper," "ample," "necessary," and "suitable." This commonly places the responsibility for interpretation upon untrained persons, and among these there is much disagreement as to proper procedure. In the face of the opposition and differences of opinion encountered, it is exceedingly difficult for fire marshals, fire chiefs, or any others interested in the matter to secure proper enforcement of the laws.

A notable legislative effort toward protection of institutional buildings in one of the most progressive states requires that all such buildings "shall be equipped *either* with an automatic sprinkler system *or* with an automatic fire alarm system." This gives a choice between the best fire fighting system (which combines with it also alarm service) and purely automatic alarm service. Valuable though the latter is, there is no comparison possible between the two systems. In many cases the requirements of the law will be met by the installation of the automatic fire alarm system, purely because of the difference in cost.

One important need is for the establishment of standards for new buildings. This can be most easily and satisfactorily met by adopting the recommendations embodied in the building code of the National Board of Fire Underwriters, copies of which can be secured from that organization, at 76 William Street, New York. Standards must also be established for such matters as housekeeping, guarding of special hazards, egress facilities, fire drills, and extinguishing equipment. In the preparation of such standards the data available through the National Fire Protection Association will fill practically every need.

Many of the deficiencies in present legislation regarding protection in institutional buildings may be met by proper use of the authority vested in state and city fire marshals, fire chiefs, and other officials. If all such officials were to use this authority without fear or favor, for the best interest of the people, and were their decisions properly sustained by the law, much improvement could be made in a short time. Of special interest in this connection is the action of the Chicago Municipal Court and the Illinois Supreme Court in finding liable the Washington Home for neglecting to obey an order to install automatic

sprinklers. This was a home for inebriates accommodating over one hundred patients. The contention of the management was that the city ordinance which required the installation of automatic sprinklers was a violation of the Federal constitution. The courts ruled, however, that it was a reasonable exercise of police power, and the ordinance will be enforced.

Inspection.—Even where the best of conditions have been established, frequent inspections are necessary for their proper maintenance. Where conditions are poor, frequent inspections are even more necessary, in order that these hazards may be kept at a minimum. A chief engineer or other competent man at each institution should make inspections at least once a week covering at least the various up-keep matters presented in this article. In addition to such inspections there should be more detailed inspection, preferably twice a year, by expert fire prevention engineers. Members of the public fire department should also make frequent visits to institutions, in order that through knowledge of conditions they may be able effectively to handle any situation that may arise. Superintendents and doctors should also have fire protection in mind when making their regular rounds.

Watchman service should be provided at every institution, and each floor of each building, as well as the outside grounds, should be covered hourly by a watchman throughout the night. Such a man should be of a high type as regards character and ability, and should be carefully instructed regarding the proper action to be taken under any conditions which may arise. He should be well informed regarding fire hazards and the location and operation of fire alarms and fire equipment. Watchmen should follow a definite route in making their rounds and should register their movements on recording clocks. A detailed report of conditions should then be made out and delivered to the superintendent each morning.

Instruction.—All officials, doctors, nurses, attendants, and other employees at institutions should be carefully instructed regarding common fire hazards, the use of extinguishing equipment, and the method of sending in a fire alarm. Following fire drills, these matters should be discussed with all such persons, especial attention being given to the instruction of new employees.

Special Occupancies

Emergency, Acute, General, and Maternity Hospitals.—In these institutions the inmates are largely helpless but mentally alert, and every effort should therefore be made to prevent alarm or excitement among the inmates at time of fire.

Fire alarm signals should be given by means of colored light, soft toned bells, or other special means.

The majority of inmates, being unable to walk, must be moved by nurses and attendants. To carry a stretcher or mattress requires at least two persons and takes considerable time. When stretchers are used, inmates must be handled twice, and especially in the case of operative patients, this is apt to result seriously. It is practically impossible to carry patients either in stretchers or on mattresses down fire escapes and difficult even on the easiest stairways. To pass through doorways takes considerable time. The following points therefore seem very important:

1. Patients should *not* be taken from their beds.
2. The beds, with the patients in them, should be wheeled horizontally through fire walls or fire-resistive corridors, or, in the case of isolated buildings, down ramps to the ground.

This leaves the stairs or fire escapes clear for the use of firemen. In all wards, the most helpless patients should be placed nearest the exits. Beds should have casters not less than four inches in diameter, those at one end of the bed being fixed and at the other of the swivel type. At time of fire or fire drill, the doctors, nurses, and attendants of the safety corps should wheel all beds to a place of safety. Under the worst conditions, each person should be able to wheel beds to safety at the rate of one every three minutes. Fire ramps, where necessary, may be built to connect porches already provided. A straight ramp from each ward is preferable, however.

Where for any reason it is necessary to use stretchers, a generous supply of these should be provided. They should be strong and light, should be kept at a conspicuous central location, and should be designated "*FOR USE AT TIME OF FIRE ONLY.*" They should be considered a part of the fire equipment and other stretchers should be used for ordinary purposes.

The advisability of sounding fire alarms and removing inmates from buildings for drill purposes in certain types of institutions is debatable. During pleasant weather, or where provision is made for safe egress without exposure, this can usually be done if helpless and nervous inmates are previously notified of the drill and the absence of danger. Where this cannot be done, the fire brigade and safety corps should be organized, frequently instructed, and drilled to whatever extent is practicable, with especial care.

Dispensaries and Clinics.—These are usually comparatively small and are sometimes in hazardous locations. The patients are unfamiliar with their surroundings and need careful direction at

time of fire. Nurses and doctors should thoroughly understand matters of sending in fire alarms, handling extinguishing equipment and directing egress.

Hospitals and Asylums for Insane, Feeble-Minded, Defective, and Epileptic.—There are approximately 600 such institutions in the country. One of the chief difficulties is the provision of a sufficient force of attendance to handle inmates rapidly at time of fire. One attendant at least should be kept in each ward at all times, day and night. Where wards are large, there should be at least one attendant delegated to every fifteen patients.

Many of those in charge of institutions for the insane claim that such persons are easier to control than those in possession of their normal faculties. This may ordinarily be true, but those who have had experience with insane in actual fires contend that they are more susceptible to panic than normal persons. In one instance, when the fire alarm was sounded, patients hid under beds and in closets and fought those who endeavored to take them out.

Ordinarily no fire drills are held for insane patients, but several times each day they are assembled and marched in orderly manner to meals, to work, or to exercise. This gives excellent opportunity for drilling them in rapid exit, and on such occasions the regular fire drill signal should be used and patients should be required to form and march out in as rapid and orderly a manner as would be necessary at time of fire. For drill purposes, patients should be assembled and marched out at irregular times of day. Night drills, while desirable, may not be feasible.

At many institutions for insane there are work shops for raffia work, weaving, printing, mattress work, baking, shoe repairing, painting, carpentry, tailoring, etc. They all have their special fire hazards, and should never be located in main buildings occupied by inmates.

Insane patients have been known to jump from fire escapes with fatal results. Fire escapes, therefore, should preferably be enclosed by screens.

For existing combustible buildings of frame or wood-joisted construction, the following should be provided:

1. A thorough detailed survey of the property by competent fire prevention engineers.
2. An arrangement of logical program for improvement covering the most important matters first, and making each dollar spent provide maximum protection. Such a program will usually include:

(a) Elimination of possible causes of fire.

- (b) Automatic sprinkler protection.
- (c) Proper egress facilities.
- (d) Enclosure of floor openings.
- (e) Subdivision of large areas.
- (f) Use of fire-resistive construction for boiler rooms and other hazardous places.
- (g) Detailed fire prevention work and frequent inspections.
- (h) Frequent fire drills.
- (i) Instruction of all employees in fire prevention, fire extinguishing, and sending of alarms.

PREVENTIVE MEDICINE INCREASES IN IMPORTANCE

"During the last few years increasing importance has been given to the preventive side of medicine," says the *Nursing Mirror*, in a recent number. "The case of those who are suffering from grave maladies at an advanced stage is fast ceasing to be the most 'interesting' to doctors and nurses, and training in the wards of a hospital is no longer considered the sole qualification for a medical man, whose chief service to the state may be to recognize disease in its earliest stages, when its visible symptoms amount to little more than lassitude and vague discomfort, and the patient is still carrying on his usual routine of active life. At first sight the nurse's opportunities of contact with disease in its incipient stages may seem to have been curtailed rather than enlarged of late years. The financial difficulties of hospitals tend to the exclusion of all but urgent cases; the housing and financial problems of the middle classes make them increasingly unwilling to employ a resident nurse for the care of any but difficult and dangerous cases; out-patient wards as at present organized are but little adapted to the training of nurses from the preventive standpoint, nor can they offer much opportunity to nurses, intent upon prevention rather than cure, to make their influence felt. But there is in special branches of nursing a great field for the trained woman to cooperate in teaching people how to keep well, and investigating disease at its source, thus helping forward the preventive work of the future as materially as they have done the mainly curative work of the past. Preventive medicine being concerned much more with the continuous daily routine of the patient than with his temporary behaviour and reactions in his sick-bed, stands to gain very much from the observations of the district nurse. She has unrivalled opportunities of noticing the effects of food, ventilation, housing, and occupation upon the welfare of her patient, and also upon those of the patient's family who are in health, and it is for her to translate into the terms of domestic manners and customs, those general precepts of hygiene which sound so vaguely in the ears of the unlettered. The school nurse, following up the cases of children inspected by the medical officer, can teach much which will benefit not only the patient, but his family. She may also elucidate questions that necessarily puzzle the doctor. If the child she visits inhabits a back-to-back house, or if its relatives are employed in pulling rabbit fur, she will not expect rapid convalescence."

All the hospitals of one hundred beds and over in British Columbia are included in the Class A group as recently published by the American College of Surgeons. It is considered, too, that several under one hundred beds could qualify for this standard.

DRYING AND IRONING IN THE HOSPITAL LAUNDRY

BY WALTER TRIMBLE, CHICAGO, ILLINOIS.

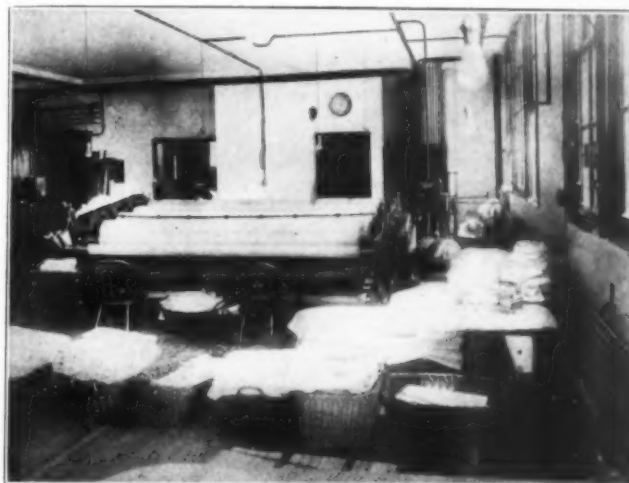
IN MY previous articles I gave a sketchy description of the washers and extractors which are used in a power laundry. Next we come to the drying apparatus. All articles are not dried in a special drying machine, however, for sometimes the damp goods go direct from the extractor to the ironing machine.

Where fabrics are dried preparatory to ironing, the process is of more importance than one would assume at first thought. First, if the articles are dried at too high a temperature, they may be baked and thus ruined, especially in the case of woollens. Second, there is more than a little fire hazard in connection with dry rooms and drying tumblers, for when hot goods are taken out of them and packed tightly together there is danger of spontaneous combustion. As a matter of fact, many fires have started in this way.

The Drying Apparatus

The simple type of laundry dry room, used in small plants, is merely a compartment, heated either by a stove or by steam coils, into which compartment the articles are hung and left to dry. The more elaborate dry rooms have ventilating fans, and the pieces are dried as they are con-

room, is the heated drying tumbler. This machine, as shown by the accompanying illustration, consists of an outer shell, in which an inner shell rotates forward and back. A blast of heated air enters this machine and passes through the goods, thus drying the pieces. In some cases a



MULTIPLE-ROLL FLAT WORK IRONER.

This illustration shows the chest type of machine, with four padded rolls. The pieces are fed into the machine at the end which is near to the wall, and they come out on the table, where they are folded.



IRONING DEPARTMENT OF SMALL HOSPITAL LAUNDRY.

At the right is shown a small flat work ironer. Back of this is shown a conveyor dry room. At the left are three hand-ironing boards, and back of them is an old-fashioned body ironer, a machine which rapidly is being supplanted by the pressing machine.

veyed through the compartment, on endless chains. A conveyor dry room is shown in one of the accompanying illustrations.

The latest type of drying apparatus, and one which to some extent supplants the old-style dry

blast of cold air is passed through the dried goods, to cool off the pieces, so they may be more easily taken out of the machine. This cooling of the goods also removes the fire hazard, and it is claimed that it also removes all odors of soap, which sometimes have a tendency to linger in the goods.

In some plants, the starched pieces are dried in a heated tumbler, instead of putting them through the dry room. This practice has some advantages, it is claimed, but if this plan is used, one must be careful not to "tumble out" the starch. This can be avoided by the exercise of a little care. There is a difference of opinion as to the merits of this plan, and therefore each laundry superintendent will have to rely on his own experience to guide him, as he must in many other matters where practical men do not agree. In this connection it may be well for me to explain that it is not my desire to advocate any particular plan, and that my purpose is merely to place different ideas impartially before the reader, who must do his own thinking and make his own decisions.

Sometimes, the starched work is not dried before it is ironed, but goes to the ironer damp, as it comes from the extractor. This plan, which has

1. This is the fourth of a series of articles by Mr. Trimble on "The Hospital Laundry." The first three appeared in the November, 1920, December, 1920, and January, 1921, issues of THE MODERN HOSPITAL.

2. THE MODERN HOSPITAL, January, 1920.

many able advocates, will be discussed later, in connection with the subject of starching, to which it belongs.

The flat work, as I have explained, consists of sheets, hand towels, pillow-slips and similar articles, and it is ironed direct from the extractor, damp, on a machine which formerly was called a mangle, but which now is called a flat work ironer. Usually, the flat work ironer is the most important machine in the hospital laundry, for flat work is by far the greatest portion of the washables in nearly every hospital, and it must be ready on time.

Types of Flat Work Ironers

There are two principal types of flat work ironers, known as "cylinder" machines and "chest" machines. In the former type there is a large cylinder, heated, and the fabric passes between it and a padded roll, of smaller diameter, or perhaps several of these padded rolls. In the latter type, the fabric passes between the concave wall of a heated chest and the padded roll, or between a series of these chests and rolls.

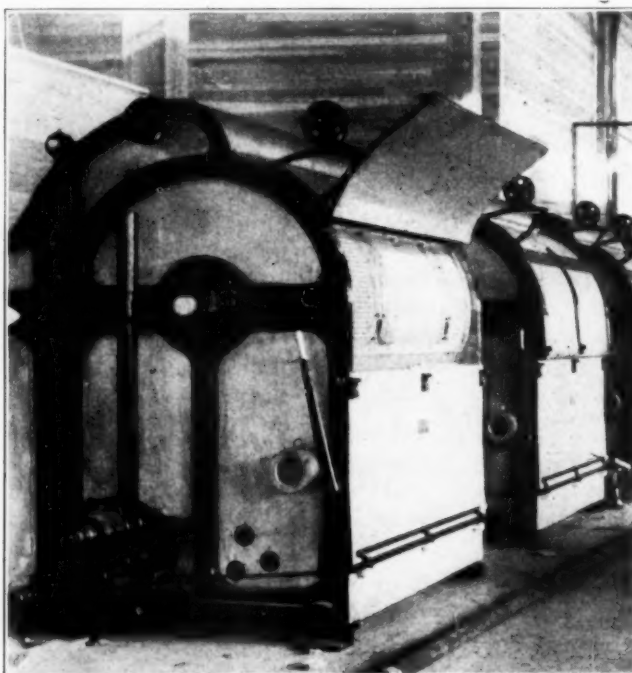
All of the larger flat work ironers are heated by high-pressure steam, but some of the smaller machines are arranged so that they may be heated by gas. The principal disadvantage of a gas-heated machine is that it may be heated too hot and thus scorch the goods, but if due care is exercised, this may be avoided. There are some small machines which are heated by electricity, but unless the price of current is unusually low, it is expensive to operate them.

The type and capacity of machine to be selected depends on the needs of the individual hospital; hence, in installing a new plant one should be

careful to select what will best fit the case. The accompanying illustrations will give the reader a general idea of both the large and the small machines.

Other Ironing Machines

As the old-style body ironer, used for ironing apparel, is passing out of use, we will not dis-



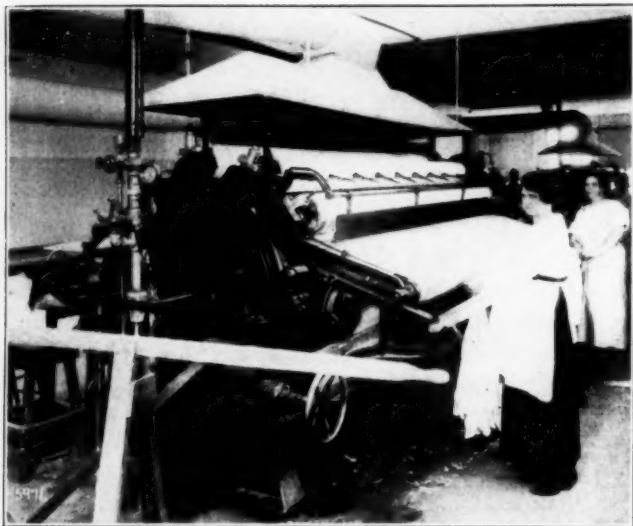
HEATED DRYING TUMBLERS.

The heated drying tumbler is a very useful and very economical machine. Bath towels, blankets, underwear, and many other articles, after being dried in this machine, do not need to be ironed.

cuss it. The successor to this faithful standby is the pressing machine, one of which is shown in one of the accompanying illustrations. A great variety of work can be done on modern pressing machines, and with a great saving of both muscle and time.

There are several makes and types of pressing machines, all of which are steam heated, but the principles of all of them are the same. The laundry pressing machine has a heated and padded surface, on which the piece of goods rests while it is pressed by a polished-metal surface, without friction. Do not confuse the laundry press with the garment press which is used by the dry cleaner and the tailor, for in the latter machines there are two padded surfaces, both heated, and steam issues from the top, or "head," thus dampening the cloth.

There are several smaller machines which are used for ironing various articles, but I will not discuss them at length. Shirts may be altogether ironed by hand or they may be ironed by machine, the better method being determined by the number of shirts to be done. What is called a



LARGE FLAT WORK IRONER, CYLINDER TYPE.

This illustration shows a heated cylinder type of machine, with several padded rolls. Note the hood above, through which the heated and humid air is drawn by an exhaust fan. The front is guarded so that the feeders cannot get their hands caught in the machine.



A SHIRT FINISHING DEPARTMENT.

A shirt finishing department of this type is, of course, installed only in a large hospital. At the extreme right is a good view of a pressing machine. At the left are the smaller presses, and in the center is a bosom press. The "unit," as it is called, is served by the conveyor, shown in the background, which saves many steps for the workers.

"unit" of shirt machines is shown in one of the accompanying illustrations.

The ironing machines which are now used in the modern laundry do not finish the goods by means of friction, as in hand ironing, but they impart the smooth finish by means of pressure. For this reason, machine ironing, if properly done, is even less injurious to the goods than hand ironing.

* * * *

Questions and Answers

"How can I prepare cold starch?—Texas."

I do not believe that it will pay you to bother with preparing cold starch. It will be less trouble to buy the ready-to-use cold starch from your supply dealer, and it will cost you less. All you will have to do is to follow the maker's directions. However, do not think that one viscosity, or thickness, will do for all kinds of work.

"In the hospital laundry of which I am the superintendent we use ten pounds of chloride of lime per week, in making bleach liquor. I ordered twenty ten-pound cans, a twenty-weeks supply, but the laundry supply dealer sent me a two-hundred-pound drum instead. When I protested, the dealer claimed that it makes no difference whether the chloride of lime is in small cans or in bulk. Is this correct?—Washington."

No, it is not correct. The value of chloride of lime depends entirely on its percentage of available chlorine, by which is meant the amount of chlorine which will be given up and enter a water solution. The moist, warm atmosphere of a wash-room will cause exposed chloride of lime to lose its chlorine content quickly. If possible, purchase it in small containers, so that you can use all of the contents as they are opened, thereby getting the full advantage of each container's chlorine content.

APPROPRIATIONS NEEDED FOR PUBLIC HEALTH SERVICE WORK

The United States Public Health Service has issued a summary of some of the points emphasized by Surgeon General Cumming in his annual report of the Public Health Service. In speaking of the appropriations which are needed for the work of the Service, the Surgeon General said: "In October, 1919, the department submitted to Congress a program recommending an appropriation of \$85,000,000 for the construction and acquisition of additional facilities to meet the growing needs of the Service in connection with the care and treatment of war risk insurance beneficiaries. Congress, in its wisdom, however, deemed it unadvisable to appropriate this money for hospital purposes. Since then, the number of beneficiaries has steadily increased, and recent reports indicate that about 20,000 patients were, on July 1, receiving hospital care from the Public Health Service, as against 2,000 when the request was made.

"In addition to increasing existing facilities by the construction of new hospitals, it is desired to bring to the attention of Congress the dilapidated and unsatisfactory condition of many of the hospitals now owned and operated by the Public Health Service. Some of these hospitals have been owned by the government for years and were used for the treatment of seamen of the merchant marine and other beneficiaries of the service, prior to the act which admitted ex-service men of the recent war as beneficiaries. It is presumed that these institutions will be used for years to come for these beneficiaries, despite action which Congress might take with reference to the beneficiaries of the War Risk Insurance Bureau. It is therefore necessary that these institutions be placed in first class condition. All of the marine hospitals at the present time, with but few exceptions, are of antiquated construction and badly in need of repair. Only a few years will elapse before it will be necessary to discontinue entirely the use of these institutions, unless steps are taken to reconstruct and remodel the same to meet with modern ideas of hospital construction and management. Recommendations as to the hospital needs for patients of the Bureau of War Risk Insurance will be presented to Congress in a separate communication.

"The Public Health Service reiterates its firm belief that an adequate hospital construction program should be undertaken by the national government for the care of ex-service men and women. It is not clear how this responsibility can be adequately met in any other way. It is not believed necessary to go into a very extensive hospital construction program, but certain consideration should be given to a program sufficiently adequate to meet the needs of the situation, and this will mean the expenditure of many millions of dollars. It is repeated that the special needs to be met are those of ex-service men and women suffering from tuberculosis and mental disorders. These groups of patients will require treatment for long periods of time, and their demand is for care and treatment in governmental institutions."

A Duty of Social Service

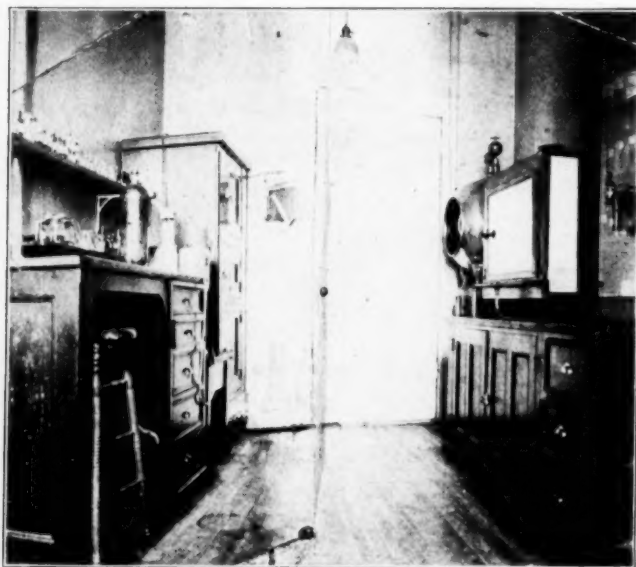
One important phase of hospital social service work should be to see that the affairs of the patient are not neglected or mismanaged while he is in the hospital. Quite often complaints of this kind come into institutions, and through the social service department it is possible to investigate them and, if necessary, bring them to the attention of the proper authorities.

PLANNING AND EQUIPPING THE SMALL HOSPITAL LABORATORY

By WILLIAM A. HINTON, M.D., PATHOLOGIST, BOSTON DISPENSARY, BOSTON, MASS.

The planning and equipping of a small clinico-pathological laboratory involves the selection and placing of the equipment that contributes best to ease and economy of laboratory work. Without the services of a recognized pathologist of administrative ability, this is a most difficult task, for the pathologist of such a laboratory is usually a recent medical graduate who has had little or no experience in planning and equipping a laboratory. Moreover, he has usually received his training in pathology in a large hospital, where the facilities for routine work and research work were ample, consequently he has little conception of the actual needs of a good laboratory in a small or moderate sized hospital or dispensary. In some instances a technician, whose judgment for purchasing apparatus and planning the laboratory is immature, is secured, rather than a medically trained pathologist. The superintendent, therefore, must be looked to ultimately in such instances, to supply the judgment necessary for the efficient planning and equipment of a clinico-pathological laboratory.

As an aid to administrative officers, planning such a laboratory, this article will be valuable. The laboratory described herein affords facilities for carrying out thoroughly the ordinary routine examinations, the examination of milk, the preparation of tissues for histologic examination and simple bacteriologic work.—EDITOR.



Photograph of the interior of the pathological laboratory of the Lowell Corporation Hospital, looking toward the entrance.

THE most meagre requirements of a clinico-pathological laboratory should include facilities for carrying out routine examinations of blood, gastric contents, feces, spinal fluid, sputum, urine, and milk, also for the preparation of tissue for histologic study, and the execution of simple bacteriologic work, including the making of ordinary culture media.

I have chosen the plans and equipment of the pathological laboratory of the Lowell Corporation Hospital to show how a very small room may be equipped for such work. Its facilities are sufficient for a hospital of one hundred or less beds and a dispensary service of less than 50,000 patients per year. No provision was made here for performing necropsies, but the tissue obtained from them may be prepared for thorough histologic investigation without additional facilities. Usually it will be found best to have the complement-fixation work performed in the nearest laboratory of recognized standing.

The original design of the Lowell Corporation Hospital did not contemplate the establishment of a laboratory. The single room actually selected for this work was chosen because it was practically the only available space. The room has a north exposure and is eleven feet wide by fifteen feet, nine inches long. Its small size at once imposes great restrictions. Extreme care was necessary in the arrangement of equipment to leave sufficient unoccupied floor space to allow facility in laboratory manipulations. Further, it was desirable to consider certain architectural features of the building—the positions of the window, door, steam radiator, and plumbing. Even in planning a new building a careful study with the architect of these structural elements will greatly reduce the cost of laboratory construction. The plans and photograph illustrate the arrangement and relative sizes of some of the equipment.

Furniture and Cabinet Work

The cabinet work is of oak, stained in mission finish. Linseed oil, diluted with turpentine or furniture polish, is applied from time to time as required. No varnish or shellack is used because many of the chemicals used in laboratory work mar furniture and cabinet work finished in that manner. Clear yellow pine of good grade, similarly finished, is cheaper, almost as durable, and makes a very neat appearance. The table tops

throughout are of white wood and finished with the following acid proof stain which makes a very durable surface: solution I: copper sulphate, 125 grams; potassium chlorate, 125 grams; water, 1,000 cc; and solution II: hydrochloric acid, 180 cc; aniline oil, 120 cc; water, 1,000 cc. Apply with brush two coats of solution I while it is boiling hot, allowing from twelve to twenty-four hours interval between each coat. After the solution has dried thoroughly apply two coats of solution II, allowing the same interval between the coats. After the last coat has dried, wash with soap and water and allow the tops to dry thoroughly, then rub the surface with fine pumice stone and boiled linseed oil. One should be cautious in applying solution II to avoid aniline poisoning. Thick rubber gloves afford ample protection against this danger. If table tops so treated are occasionally rubbed with equal parts of boiled linseed oil and turpentine, a very smooth, uniformly black, ebony-like surface will be obtained. Wooden table tops are superior to slate, glass, or any similar hard substances because the wood is more elastic and does not break glassware so easily.

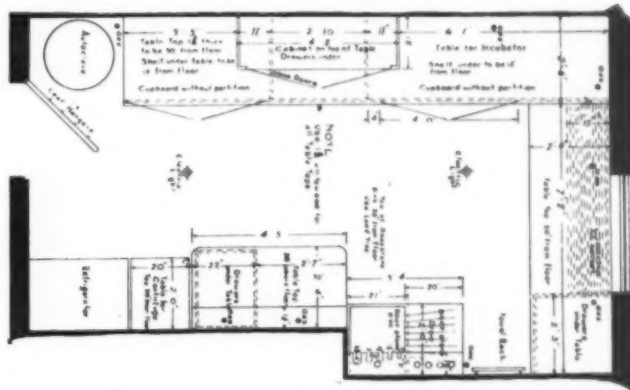
Arrangement of Equipment

Table space is provided adjacent to the autoclave, centrifuge, refrigerator, and incubators, where articles to be placed in or removed from any of this equipment may be laid while the cabinet doors are being opened or closed. The sink and the table for chemical work are higher than the usual ones in order to make the work easier while standing.

Above the soap stone drain are four small cold water faucets for washing Zenker fixed specimens. The sink is equipped with a combination hot and cold water faucet and over it against the wall is a shelf made of two inch oak, five feet two inches from the floor, to hold cylindrical graduates. The shelf for holding cylindrical graduates is doweled in front to prevent splitting. Such a shelf is desirable because these graduates are likely to fall and break at the top, unless properly supported when not in actual use. Another shelf is located against the wall twenty inches above the table for chemical work.

The incubators are placed in a corner to avoid draft, which otherwise would greatly interfere with even temperature regulation. A slatted shelf to store pieces of apparatus was placed under the table in the front of the window, and adjusted to serve also as a footrest; comfort and ease add greatly to the quality and quantity of the laboratory output. A similar shelf would have been placed under the table next to the centrifuge if this space had not been occupied by a steam radiator.

No space was available for a store room. The shelves and cupboards accommodate all of the apparatus and supplies to be listed. A separate store room under lock and key would be preferable.



Plan of the Pathological Laboratory of the Lowell Corporation Hospital.

List of Apparatus and Equipment

The most important apparatus is as follows:

- 1 autoclave.
- 1 hot air oven for drying glassware, browning cotton stoppers for culture work, etc.
- 1 small incubator for paraffin sections.
- 1 incubator for bacteriologic purposes. (If heated by gas, both these incubators should be furnished with Roux bimetallic thermo-regulations.)
- 1 refrigerator.
- 1 electric centrifuge with accessories. (This should accommodate at least 6 urine sediments at a time.)
- 1 microscope with oil immersions and Abbe condensor.
- 1 microtome for frozen sections.
- 1 microtome for paraffin sections.

All of this is permanent equipment, and the greatest care should be used in its selection. Poorly constructed, cheap apparatus is very expensive to keep in good repair. The size will depend on the amount of work required. In securing the incubator, the paraffin oven, the refrigerator, the hot-air oven, and the centrifuge, it is wise to allow for the future growth of the work.

In addition to these larger and more expensive pieces of apparatus, most of the following will be required:

- 1 electric lamp for microscopic illumination equipped with a special "daylite" filter.
- 1 two-burner gas stove.
- 1 Harvard Trip balance.
- 1 set metric weights, one gram to 1,000 grams.
- 6 bunsen burners with pilots.
- 6 ring stands.
- 1 tripod (outside diameter 6 1/4 inches).
- 6 pairs forceps.
- 1 sterilizing pan.
- 5 brass test tube racks.
- 12 brass test tube baskets.
- 1 meat grinder.
- 1 set cork borers.
- 2 platinum loops.
- 1 agate double boiler.
- 1 triangular file, 5 inch.

- 2 galvanized iron waste cans.
- 6 test tube brushes (large).
- 6 test tube brushes (small).
- 6 six-inch wire gauze squares.
- 6 pinch cocks.
- 6 cover glass holders.
- 6 test tube holders.
- 2 thermometers.
- 1 urinometer and cylinder.
- 1 tuberculin syringe.
- 2 Luer syringes, 10 cc.
- 1 diamond pencil for writing on glass.
- 1 bellows for blast lamp.
- 1 blast lamp.
- 1 Barnstead still (steam or gas).
- 1 1,000 cc. cylindrical graduate.
- 2 100 cc. cylindrical graduates.
- 2 25 cc. cylindrical graduates.
- 1 set beakers (50-1,000 cc.).
- 1 burette (50 cc., graduated in tenths, with glass cock).
- 1 burette (50 cc., graduated in tenths, for alkaline solutions).
- 2 glass funnels, 2 inch to 4 inch diameter.
- 2 glass funnels, 6 inch to 8 inch diameter.
- 1 corrugated funnel, 8 inch diameter.
- 10 gross test tubes (125 mm. by 15 mm. diameter).
- 5 gross tubes (100 mm. by 10 mm. diameter)—useful for serum work, and for sedimenting urines.
- 2 gross thin tubes (150 mm. by 20 mm. diameter).
- 1 1,000 cc. volumetric flask.
- 1 500 cc. volumetric flask.
- 1 50 cc. volumetric flask.
- 1 dozen 10 cc. pipettes, graduated in tenths.
- 1 dozen 1 cc. pipettes, graduated in tenths.
- 1 dozen drop bottles (50 cc.).
- 1 dozen drop bottles (30 cc.).
- 6 staining jars (Coplin).
- 6 staining jars (flat).
- 12 stender dishes with glass tops.
- 12 boxes glass slides.
- 12 boxes cover slips, $\frac{3}{8}$ inch.
- 6 2,000 cc. Pyrex glass Erlenmyer flasks.
- 6 500 cc. Pyrex glass Erlenmyer flasks.
- 6 250 cc. Pyrex glass Erlenmyer flasks.
- 6 100 cc. Pyrex glass Erlenmyer flasks.
- 12 wine glasses (for testing albumin in urine).
- 10 pounds glass tubing assorted from 5 mm. to 1 cm. in diameter.
- 2 500 cc. graduates.
- 2 250 cc. graduates.
- 1 100 cc. volumetric pipette.
- 1 50 cc. volumetric pipette.
- 1 25 cc. volumetric pipette.
- 2 10 cc. volumetric pipette.
- 2 2 cc. volumetric pipette.
- 2 1 cc. volumetric pipette.
- 6 fermentation tubes.
- rubber tubing (as required).

These lists include practically all of the equipment except chemicals, stains, and a few surgical instruments to be used in connection with histopathology.

Cost of Equipment

The entire equipment, including the installation of plumbing and cabinet work, should not ex-

ceed \$2,500.00 even at the present high cost of labor and materials. This figure assumes that the best workmanship and the best quality of materials are used throughout. No other should be employed because the upkeep of poor apparatus and equipment is both annoying and expensive.

This plan and equipment may be adapted to almost any space of equal or greater size. A north light is desirable, both for microscopic work and for even vision, throughout the day. However, microscopic work may be done with equal or greater facility in a room not especially designed for it, if the special electric lamp for illumination is used. Space for laboratory purposes should be near the dispensary department, in order to serve both hospital and dispensary with the least inconvenience.

SURGEON GENERAL DISCUSSES DANGER OF EPIDEMICS

Surgeon General Cumming, in the annual report of the Public Health Service, discussed, among many other subjects, the matter of appropriations for new hospitals for war risk insurance patients, immigration and quarantine, situations here and abroad and the loss of personnel to the Service. He said, in part: "With the cessation of hostilities in Europe and the resumption of maritime commerce, the danger of the introduction of epidemic diseases into the United States increased. During the war, sanitation and public hygiene were more or less neglected. In the countries of central Europe conditions became very favorable for the outbreak of epidemic diseases, and, in many areas infection of typhus, plague, and cholera smouldered along, ready to burst forth under conditions that subsequently were sure to arise. The saving feature of the whole situation was the restriction of travel from one country to another. On the resumption of commercial intercourse, the expected happened. Even before the armistice this condition of affairs was foreseen and medical officers of the Public Health Service were sent to Europe for the purpose of investigation and to make preparation for the application of preventive measures at European ports of departure whenever trans-Atlantic travel should be resumed. At present, officers of the Public Health Service are stationed at practically all of the important ports of continental Europe for the purpose of inspecting vessels and personnel, prior to their departure for ports of the United States. All verminous persons coming from typhus-infected areas are required to undergo appropriate treatment, and detention when necessary, before embarkation. Notwithstanding this precaution, however, typhus has broken out on several of the vessels bound for ports of the United States, but, with the detection of the disease on the arrival of the vessel, and the appropriate treatment at quarantine stations, the efforts to prevent the introduction of typhus from Europe have proven entirely successful. Measures in force along the Texas-Mexican border to prevent the introduction of typhus from Mexico into the United States have been equally effective. While typhus would probably never cause such a serious epidemic in the United States as in other countries, yet it is probable that the conditions in the tenement sections of the larger cities would be productive of a serious epidemic of typhus if the infection were introduced into such localities."

THE ROYAL PRINCE ALFRED—A GREAT AUSTRALIAN HOSPITAL*

By WILLIAM EPPS, F.C.I.S., SECRETARY, ROYAL PRINCE ALFRED HOSPITAL, SYDNEY, N. S. W.

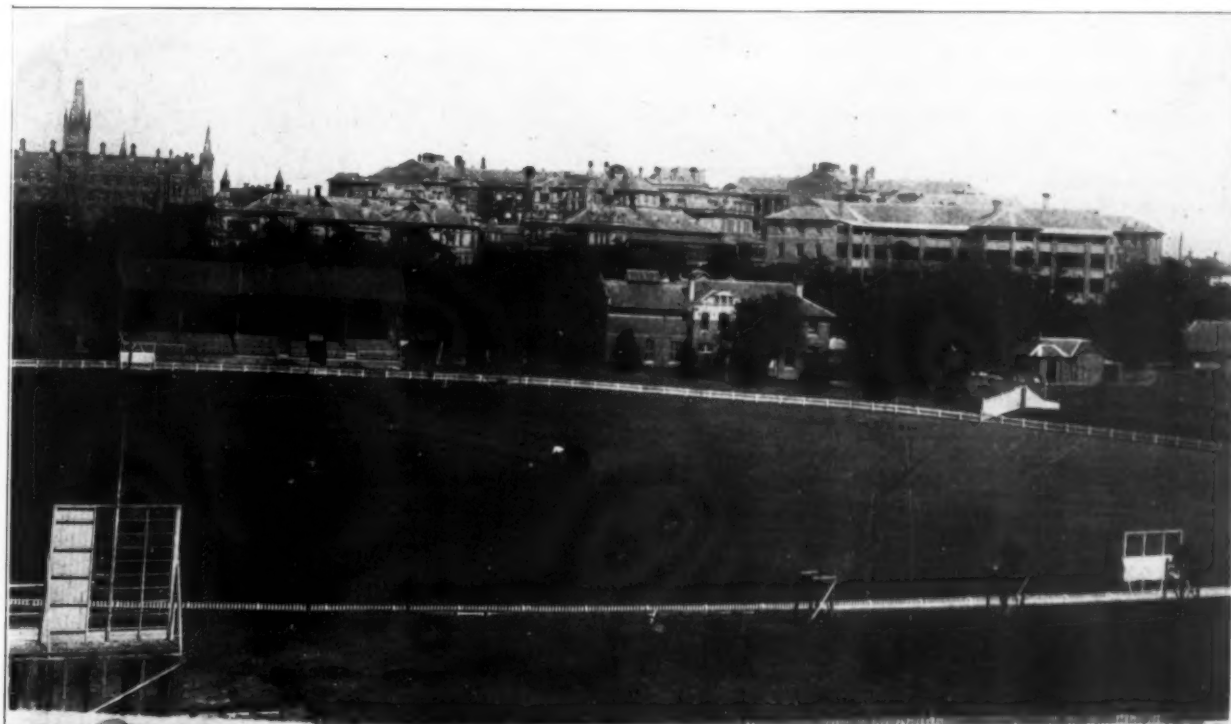
A PART from these particulars of general and financial conditions which may or may not be of interest to readers of *THE MODERN HOSPITAL*, it may be stated that the hospital is conducted generally much on the lines of a well managed American hospital. The daily average number of in-patients, accommodated in 518 beds, runs from 480 to 500, while the out patients proper treated in 1918-19 totaled 11,583 and the casualty cases, 16,335, with total attendances between the lot of 82,607. Of the in-patients, the majority are surgical cases, the number of operations in the year mentioned being 4,294 out of a total of 7,667 treated. The hospital indeed is rather noted for its surgical work. This proportion of surgical cases was much less in the year quoted than usual, however, owing to the outbreak of influenza last year, which necessitated the closing of several surgical wards for a time. In 1916 the operations totaled 5,258. In its general work the hospital, in addition to large general, medical and surgical departments, has departments in gynecology, ophthalmology, skin, ear, nose and throat and venereal diseases, with special depart-

ments for pathology, radiography, and medical gymnastics or orthopedics. Most of these have been in existence for many years, the hospital being the first in Australasia to open a medical gymnastics department in 1906. In its out-patient departments it has all these branches of work also, together with special clinics (day and night) for venereal diseases, and an anti-tuberculosis dispensary, with nurses visiting patients in their own homes.

Social Service and Auxiliary Developed on Progressive Plan

This work is, of course, all quite familiar to hospital men in America, from whom we have ourselves derived many valuable ideas. Among these may be mentioned the social service scheme, which we have had in existence in the hospital for several years, under a trained staff of experts and this has proved a wonderful source of help to the medical staff and of comfort to patients. We have also lately inaugurated a hospital auxiliary with so far, we think, wonderful results. In 1918-19 the writer carried out a campaign to raise a special fund for the hospital in connection with its jubilee which fell in 1918 and succeeded

*This article appears in two parts. The first part appeared in the January issue of *THE MODERN HOSPITAL*.



The Royal Prince Alfred Hospital from the rear.

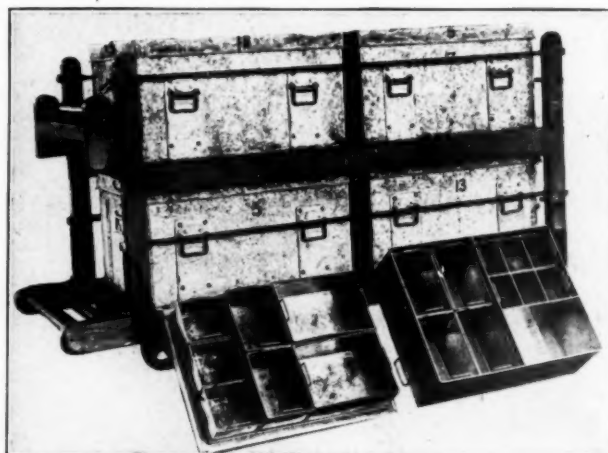
by various means in raising £28,000, equivalent to nearly \$140,000. In this work the services of a number of men and women were given voluntarily. When the fund closed, the war was just over and many of those who for years had been doing war work by giving voluntary aid and in carrying on comfort funds for different military camps, found themselves out of harness. This was an opportunity not to be lost and we followed up the Jubilee Fund by securing the help of some hundreds of these good women, and a few good men, to work as an auxiliary to the hospital. They have done splendidly. In less than twelve months they have brought in cash over £4,000 (\$30,000) and have given much personal service with such enthusiasm that the other hospitals are following suit. It appears our auxiliaries have come to stay.

Methods Used by Auxiliaries Fit Particular Circumstances

It may interest your readers to know something of our methods. We have central city offices, three bright well-furnished apartments, one of which is a sewing room. The latter, as well as a large room at the hospital, is filled five days a week with enthusiastic women who make shirts, night gowns, pajamas, sheets, pillow cases, and what not, the auxiliary providing the materials, and its executive has now agreed to provide for the next financial year, beginning on July 1, the whole of the linen and fabric material required in the hospital. This means an annual saving of some \$15,000. The systems of raising funds are varied. The organization has a general council of men and women of standing, with an executive representing all the main committees and a finance committee. In addition there are various sectional committees, all composed of women who carry out various undertakings. One of these runs a tea room at the hospital, at which one can get morning or afternoon tea and a good lunch at a reasonable figure. In view of the fact that there are always visitors to patients seriously ill in the hospital, that there are medical and massage students (for this is the massage school for the state in conjunction with the medical school) and nurses who wish to entertain their friends, there is always a clientele, and the tea room shows a profit of some \$3,000 a year. A different lot of women do the cooking, kitchen work, and serving every day (except Saturday and Sunday when the room is closed), most cheerfully and capably, so that this is a social center for the hospital. In close conjunction with these women are others who undertake catering for various functions, sometimes on a large scale.

Thus at the last Easter show of the Royal Agricultural Society, they carried on a tea and luncheon room from day to day for ten days with such success that a sum of about \$4,000 was netted. This was a big affair, involving an attendance of nearly 100 women a day, all giving voluntary help, except for a few paid cleaners and kitchen hands, and they did the cooking and waiting in a most capable way. Another lot of women again hold a jumble sale of articles of left over clothing, boots, pictures, books, and furniture every week at Laddy's Market, Sydney, for poor people. These sales realize about \$2,500 a year. Then we have other devices such as a raffle for a piece of land which was donated, and which brought in nearly \$2,000, besides a new list of regular subscribers in cash who were secured and donated some \$2,500. The linen committee is not a body for raising money, but for executive action, and its members and supporters, generally give a day a week each at one or other of the rooms. The ward and flowers committee collects on one day a week at the various railway stations and wharfs, flowers, jams, fruits, eggs, etc., for use in the wards. These efforts also represent considerable money value. Other committees give service by way of providing and carrying on a library for the patients; another gives almost daily service in the children's wards by way of kindergarten classes. It is hoped that later on a committee will be formed to help in the work of the social service department.

One feature of the auxiliary which has helped in its success so far has been the fact that we have secured the cooperation of various organizations doing other work such as various battalion Comforts Funds, the members of which have been working together and now continue to do so, keeping their old names and associations. We also have had the most valued service of an organizing secretary, a woman with social and other



Thermos dinner containers for carrying hot meals in the wagon.

experience, a capable public speaker, a writer, and a good organizer, who has been able to weld these women into a valuable whole, and keep them going. She is a paid officer of the hospital, which also pays the rent of the city offices. In some respects, I think we have thus been able to develop the ideas of American auxiliaries along our own lines in a satisfactory manner.

Individual Devices for Assistance

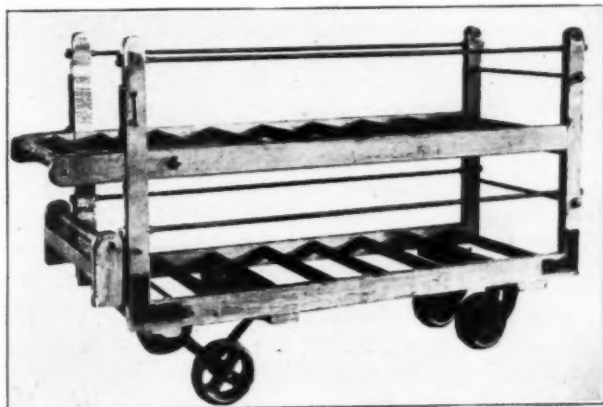
Some of the peculiarly novel or characteristic features of our hospital may be interesting to note. Opposite the tea room, on the main corridor of the hospital, we have for some years now, conducted a shop, which is a sort of miniature department store for the benefit of the patients, the staff, and the hospital. It is operated on the lines of the 'tuck shop' at the English public school, selling most of the things which one wants while away from home, such as fruit, cakes, sweets, aerated waters (including soda fountain drinks), tobacco, cigarettes, caps, slippers, stationery, books, tooth and hair brushes, and what not. When anyone asks for something not available and likely to be wanted again, we get it. We employ two female assistants and charge regular city prices, and as a result clear some \$3,000 to \$3,500 a year profit, besides affording useful help to the patients and staff, who would otherwise have to go outside the hospital. Then we have also a barber shop, run by an experienced hair dresser who visits the wards at various times to shave patients or cut their hair, and during the rest of his time stays in his shop and operates sartorially upon the heads or faces of the resident doctors, students, or walking patients. The latter include a number of military cases, of returned discharged soldiers. As previously indicated, we receive a large number of these from the Repatriation Department, for which we reserve, under agreement, a special block with 120 beds. This has always been filled so far. It is hoped that before long we shall be able to maintain a second

barber. We opened this shop only a few months ago and so far it has paid expenses, with a little over.

I may perhaps mention one or two other things, particular to our own hospital, among which may be found something worth consideration. In our dispensary drug store we make our own disinfectants, a number of our other drugs, such as tinctures, our plasters, and various other articles for use in the ward, and thus save, we estimate, \$3,000 a year on outside prices. We also make our own aerated waters for use in the wards and by the staff at a cost of about four to six cents per dozen of syphons of soda water, with equivalent costs for other liquors. We have our own butchery, buy our meat wholesale from the carcass butchers, and have two butchers to cut it up. It is kept in our own cold storage and as a result we pay much less than the average citizen for his meat, even after the butchers' wages are included in the cost. What is more, we have the best meat on the market. No other hospital here does this. In our pathological department we have also a mortuary chamber with accommodation for eighteen bodies. We also make our own ice for use in the hospital at a cost, we estimate, much less than outside prices. We have also a soap making plant in which we manufacture all the soap used in the hospital, for the laundry, house cleaning, or personal use by the patients and staff, out of the fat refuse from our butchery and kitchen, which has proved sufficient so far for the making of all the soap needed for the institution without purchasing tallow. This is a recent innovation but is a success, and we count on saving some \$1,500 to \$2,000 a year by it. An outside soap maker comes regularly to make up the soap and with his wages our soap costs us not much more than one-half the outside market price, after allowing for what we should get by the sale of fat. We have for many years made our own laundry soap at a great saving on outside prices. We run a steam laundry doing some 30,000 articles a week.

I think perhaps I should mention here a successful innovation we have recently carried out in connection with our kitchen. Previous to a year or so ago we had three kitchens, one each for the patients, and for domestic staffs, for the medical staff and nurses.

We have a fine home with 210 bed rooms, all occupied, for our nursing staff, and one for the resident medical staff. Our main kitchen having become obsolete, we greatly increased and remodeled it, equipped it with modern steam, coke, and gas cookers and appliances, and so rearranged the system that all the cooking for the patients and all the staff is done here, with the aid of



The novel wagon used for the conveyance of dinner containers.

bain-maries in the serving rooms of the nurses. This is a great success, but of course this work is not new to most of my readers. What may be new, and certainly is a great success with us, is our system of transportation of food to the wards. Formerly it was found to be impossible to keep food hot and not to have to dish it up long before it was served. We have found the solution, however, in a system of thermos containers, one of which is provided for each ward. These are made of strong galvanized iron, with hollow walls, about an inch thick, filled with cork chips and with a lid fitting close down with a flap, also filled with chips. Into this container fit movable inside containers in strong blocked tin, which are subdivided into sections in which are placed various articles of food as specified in the ward diet requisitions, while a lid to fit on this again carries other separate tins containing puddings, etc. The food is all served in the ward kitchens and there is no need for the use of bain-maries or heaters. This is due to the fact that running along the greater part of the kitchen is a hot steel cupboard, heated by steam pipes to a temperature of say 180 degrees to 200 degrees Fahrenheit, in which the inside containers are placed prior to the time for dishing up. As the various foods are prepared they are placed in their receptacles in these containers, and the effect is that the food goes through a process of improvement even while it is being kept hot. At the given signal the porters come and lift out the containers, place them in the thermos containers, which are placed on the wagons, and in five minutes from the signal being given the food is ready to serve, hot and tasty, in the wards. The ward sisters all declare that the food is 100 per cent better than before. Certainly the scheme is a great success.

Small Charge Made Visitors

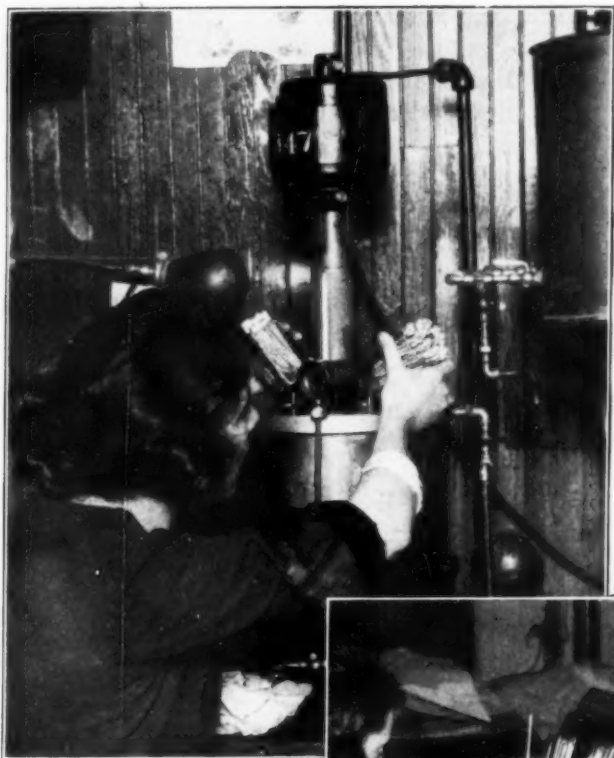
Two or three years ago, finding we needed more revenue, we decided to follow the Melbourne Hospital, by making a small charge to visitors desirous of seeing patients, not on the serious list, who may be seen at all times by their friends at other than visiting hours. Everyone predicted disaster. But it has not come yet. It may be explained that each patient on admission has two visitors' tickets handed to him, and these admit two visitors at the regular visiting hours on Wednesday, Friday, and Sunday afternoons. Thus everyone possesses the privilege of having two of his friends to see him by handing them these passes. But these others often want to come at other hours, as every hospital knows, and they are a perpetual nuisance. We have now fixed cer-

tain other hours, say, from seven to eight on the evenings of days other than visiting days and Saturday afternoon, when extra passes may be obtained on payment of six pence, equivalent to twelve cents, entitling visitors to enter the wards. From the start this was a success. We are now issuing 100,000 of these extra passes per annum, resulting in a revenue of \$10,000 a year, without any inconvenience in the work of the wards, and without the constant irritation of issuing special passes. I commend this as a means of raising revenue without friction, without cost.

I should mention, perhaps, before closing this recital of our virtues and our features, the fact that for seventeen or eighteen years I have run a quarterly journal in connection with the hospital, which provides a sort of newsy record of what has taken place during the previous three months, with some other articles on health and allied subjects of a generally interesting character. Also we present in this, one draft annual report of the year's work before it is submitted at our annual meeting, and a report of that meeting in the following issue. In this way anyone interested in the hospital is kept aware of all that is going on. This is now a rather attractive looking magazine or journal, which practically pays for itself by the advertising obtained, but much more than pays for itself by the interest it keeps alive among our subscribers and sympathizers, and by the prestige which it gains for us. No other Australian hospital does this. We issue some 3,000 copies each quarter, and those which are not sent to our subscribers go to other hospitals, medical men, etc., so that we thus provide a good advertising medium for firms doing business with us and others—and for ourselves.

TOO MANY DIAGNOSTIC METHODS CAUSE CONFUSION

The Medical Standard questioned recently the advisability of applying such a large variety of diagnostic methods in the diagnosis of every patient. It may be that in the maze of technique, the real results will be lost. You will not be able to see the forest for the trees. Diagnosis is detective work, and while it is the part of a good detective to have at his command all the means of detection the science of criminology affords, yet he should not use them all indiscriminately. In the same way, an indiscriminate, routine, stereotyped system of diagnosis is more likely to bewilder than help. There are certain diagnostic measures which might be considered as elemental, they should make the foundation in every case. A urinalysis, a blood count, a Wassermann, and a thorough physical examination make the basis for every diagnosis, and in nearly every case will furnish a clew to the difficulty, which should then be followed up until it either proves or disproves itself. It is all right to say that a diagnostician should have an open mind, but it is better that he should have a clew, which, of course, he can abandon for a better one, or if it disproves itself.




giving it a thin coating of wax. A dividing machine, adjusted to produce a fine or coarse scale as may be necessary in each individual tube, graduates the scale. The numbering of the degrees follows. During these processes the film of wax remains on the tube. It is now ready for the etching process. Hydrofluoric acid applied to the stem etches the glass where the wax has been cut away in graduating and numbering, to such a depth that when the wax is removed from the tube the lines and figures are deep enough to hold the indelible filling which makes them legible.

The upper left hand picture shows the testing of the clinical thermometer; the upper right hand picture, engraving the numbers and names on thermometers; in the center picture tubes are being closed; the picture in the left hand corner illustrates the process of pointing the heat points on household thermometers; the lower right hand picture shows the waxing process.

MAKING thermometers is a far more delicate and complicated process than most of us realize. This holds true even to selecting the glass and determining the outside diameter and the size of the tube's bore. The skill and accuracy required in determining the size of the bore are quite as marvelous as the skill demanded of the workman at the blow bench in attaching and forming a bulb which will have such relative capacity to the bore as to produce the scale of 95 degrees to 110 degrees and have it cover, and only cover, the full length of the stem.

As glass contracts with age, the glass used in thermometers must be seasoned and all shrinkage taken up before the scale is graduated on the tube in order to produce permanently accurate thermometers. When the thermometer tubes leave the glass room of the manufacturer, after passing all examinations for defects, they are boxed, sealed, dated and placed in seasoning vaults for a long period, often two years, before they are pointed and the graduations engraved. After the test points are obtained through immersing the tube in the testing bath, the complete scale is graduated on the thermometer. This is done by first dipping the tube and





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Contributors, subscribers, and readers will find important information on advertising page 42.

THE LIBRARY AND SERVICE BUREAU; AN EARLIER ATTEMPT THAT FAILED

THE inauguration of a library and service bureau under the auspices of the American Conference on Hospital Service, is the realization of an idea latent in the minds of hospital superintendents and others for many years before the proposal to establish such a bureau was formally presented to the American Hospital Association in 1909. The establishment of the proposed bureau presupposed the employment by the association of a permanent secretary and a library force, and its resources not being sufficient for the purpose, the association was obliged to content itself with the adoption of resolutions which expressed a desire rather than a plan.

In 1908, by a supreme effort, the membership of the association was doubled. The organization continued to show evidence of healthy growth during the years that followed, but still its resources were inadequate to the great task; and at the meeting in 1911, it was decided that an appeal for aid should be made to the Federal Government. A committee was instructed to bring the association's ideas and wishes to the notice of Congress, and this committee, with the cooperation of the Surgeon-General of the Public Health and Marine Hospital Service, and through the

kindness of Senator Duncan Fletcher of Florida, eventually secured a hearing.

There lies before me a document which tells its own story, and which is of sufficient historic interest to warrant its reproduction in *THE MODERN HOSPITAL*:

A bill (S. 4972) to authorize and empower the Public Health and Marine Hospital Service to collect, maintain, and make available plans and descriptive matter relative to hospitals, asylums, dispensaries, and like institutions, and make provision therefor.

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, that the Public Health and Marine Hospital Service is hereby authorized to collect, receive, maintain, and classify, in such a manner as may be accessible to Federal, state, municipal, and other hospital authorities and institutions of learning, plans of hospital and dispensary buildings, descriptive matter relating to their equipment, their rules and regulations, periodical and other reports of institutions, reports of committees or individuals engaged in the investigation of local and other special hospital problems, and other matters and literature relating to hospitals, sanatoriums, asylums, homes for convalescents, dispensaries, nursing associations, and other agencies for the care of the sick, and to convey the information thus obtained to said Federal, state, municipal, and other hospital authorities and institutions of learning, under such rules and regulations as may be promulgated by the Secretary of the Treasury.

And for this purpose the Secretary of the Treasury is authorized to submit annual estimates for such clerical help as may be necessary.

In due time a public hearing was granted by the Senate Committee on Public Health and National Quarantine. As may readily be imagined, the bill did not arouse a popular commotion. When the public hearing was opened, nobody appeared in opposition to the bill. The lack of opposition is always a bad sign, for in its absence it is difficult to secure public attention for any measure, however meritorious.

As advocates of the bill, there appeared only a committee of three, representing the American Hospital Association. An Assistant Surgeon-General of the Public Health and Marine Hospital Service, who attended, was luke warm. He pointed out that the bill sought to impose a new and serious responsibility on the Public Health and Marine Hospital Service; that the maintenance of the Bureau might become a costly affair; nevertheless, the Surgeon-General was willing to assume the duties proposed if Congress so de-

sired. The measure was vigorously championed by Senator Fletcher. Some cynical remarks by Senator John Sharp Williams of Mississippi led to a sharp rejoinder by one of the delegates present, who pointed out that Mississippi at that time was rather worse off as to actual hospital facilities than any other state in the Union; and that Mississippi, therefore, would benefit by the passage of the act more than any other state. Eventually the bill failed of passage by the Senate. In the House of Representatives the bill was introduced, but was not even accorded the decent obsequies of a public hearing.

When a government refuses to help a vigorous, loyal, and intelligent people, there is but one thing for that people to do, namely, to help themselves; and now, happily, the hospitals of the United States are to have their library and service bureau in spite of an indifferent Congress. May they support it generously, and use it freely and wisely!

S. S. GOLDWATER, M.D.

PUBLIC LIBRARY SERVES HOSPITAL

ONE of the interesting bits of personal service to hospital patients, that has been carried over from the war, is the service of the Sioux City Public Library to the patients in the hospitals of that city, patterned after the work carried on by the American Library Association for the benefit of the soldiers and sailors. Many hospitals maintain libraries for their patients, but few public libraries are making systematic effort to supply the library needs of the patients in the hospitals of their communities. Traveling libraries are going into public schools, into churches and into industrial plants; is there any reason why they should not also go into our hospitals? The pupils of our schools and the workers in our industries could, if they desired, go to the library for their books; not so the hospital patient; all the more reason, therefore, why the public library should bring its books to the hospitals. Such a scheme would enable patients to have a larger selection to draw from than is available in the hospital libraries, which, as a rule, can at best have only a small number of books. Many of these books, moreover, are frequently out of date or consist of volumes of inferior character. The books brought from the public library are much more likely to be up to date. Superintendents of hospitals the country over will doubtless wish to follow the commendable example of the Sioux City Public Library. We feel confident that the libraries will be glad to cooperate with the hospitals in working out an organized plan of hospital service, once the matter is presented in a convincing light.

A NEW IDEA IN HEALTH CONSERVATION

NOT a month goes by but new evidence comes to hand of the emphasis that is being placed on preventive as against curative work, not only in the public health field narrowly conceived, but in the hospital and institutional field as well. In our December issue we published a group of three articles on the new research and educational hospitals of Illinois and called attention editorially to the fact that the underlying principle in the planning, construction, and administration of these hospitals is the preventive principle. In this issue we publish an account (see pages 109-12) of the inception and purposes of the Valeria Home—a new idea in health conservation, as its author puts it. Here, too, the prevention of disease is one, if not the principal object of the undertaking, for it will be the purpose of those interested in the project to provide rest and recreation for people who need rest and recreation before, rather than after they become sick. This is made possible by the wording of the will of Mr. Jacob Langeloth. Mr. Langeloth says the Valeria Home is to be adapted and used for the purpose of a recreation and convalescent home for people of education and refinement who cannot afford to pay the charge exacted in health resorts and sanatoriums.

Situated as it is among the hills of Westchester County, N. Y., the Home gives promise of filling a long felt need of persons of moderate means for a country home of recreation and convalescence. The pity is that even when fully developed, the home can meet the needs only of a limited number drawing from a limited area. We hope that other men of means will follow Mr. Langeloth's excellent example so that in the not distant future a number of similar institutions may be planted at strategic points throughout the country.

OUR ANNUAL REVIEW ISSUE

FOLLOWING the precedent established last year, the March issue will be devoted very largely to reviewing developments and progress in the hospital field during 1920 from a number of angles, with such forecast for the future as is possible. The subjects which will be covered are the work of the various hospital associations, both national and state; hospital developments in Canada; hospital standardization; hospital administration; hospital construction; nursing; dietetics; social service; tuberculosis; venereal diseases; out-patient service; mental hygiene; health centers; drugs and chemicals. The articles will be written by an unusual array of authorities in the hospital field.

DR. HERBERT J. HALL HEADS REORGANIZED DEPARTMENT

WHAT was formerly the Department of Occupational Therapy, Vocational Re-education and Industrial Rehabilitation has been reorganized during the past two months and will hereafter appear as the Department of Occupational Therapy and Rehabilitation.

Owing to the demands that other interests are making upon his time, Mr. Douglas C. McMurtrie, who shared the editorship of the department with Mrs. Carl Henry Davis and who was in large measure responsible for its success, has relinquished his task. THE MODERN HOSPITAL counts itself fortunate in securing as Mr. McMurtrie's successor, Dr. Herbert J. Hall, president of the National Society for the Promotion of Occupational Therapy. He will have the able assistance of Mrs. Carl Henry Davis, Dr. Loring T. Swaim and Miss Mary E. P. Lowney as co-editors, brief biographical sketches of whom will appear in the March issue.

Dr. Hall has been identified for a long time with the progress and development of prescribed occupation as a department of medicine. He graduated from the Harvard Medical School in 1895 and served a surgical internship at the Children's Hospital, Boston, and at the Massachusetts General Hospital. He was engaged for fifteen years in the general practice of medicine in Marblehead, Mass. Early in his practice, and before the principle of prescribed work had been definitely formulated, Dr. Hall felt the need of controlling with accuracy the daily life of his convalescent patients. The little workshop which was established in the spring of 1904 was a new venture in those days, especially for a country practitioner. The principle, however, was sound; experience justified the experiment and from that day to this there has been no break in the succession at Marblehead. Dr. Hall has not been content with the routine use of prescribed occupation, but has made careful study of the underlying principle, the adaptation of special occupations to the varying requirements of physical and nervous disability. For the past seven years he has devoted himself wholly to this study and has been rewarded by generous recognition. He has, however, been content all these years to confine his work very largely to the sanatorium at Marblehead now widely known as Devereux Mansion, but lately the field has widened. During the war he was for a short time in Plattsburg, as contract surgeon, in the interest of the Neuropsychiatric Hospital there. He is a member of the board of managers of the Massachusetts Society for Occupational Therapy and president of the

National Society for the Promotion of Occupational Therapy. Besides numerous articles in the medical press, Dr. Hall has published four books, two in collaboration with Mertice M. C. Buck; "The Work of Our Hands," and "Handicrafts for the Handicapped," and two others dealing with occupational therapy, "The Untroubled Mind," and "War Time Nerves."

DR. WINSLOW GOES TO GENEVA



Dr. C.-E. A. Winslow has been appointed to the directorship of the public health activities of the League of Red Cross Societies at Geneva, Switzerland.

Prof. C.-E. A. Winslow of the Yale School of Medicine, and editor of the public health department of *Modern Medicine*, has been granted leave of absence from the Yale Medical School for the spring term, in order that he may assume the directorship of the public health activities of the League of Red Cross Societies at Geneva, Switzerland. Prof. Winslow will return for the fall term after October 1. The long and creditable connection of Dr. Winslow with public health matters peculiarly fit him for this larger field. Dr. Winslow has served in public capacity in sanitary bacteriology and sanitary biology; he has been curator of public health in the American Museum of History in New York since 1910. He was a member of the American Red Cross Mission to Russia, and in various capacities has rendered exceptional service in public health engineering. He has contributed largely to scientific literature. Better choice could scarcely have been made for the responsible post which Dr. Winslow is assuming.

THE NEWEST PROBATIONER

By GENE HARRISON, R.N., BARNES HOSPITAL, ST. LOUIS, MO.

THE newest probationer had been summoned to the office of the superintendent of the training school. Slowly she went down the corridor, her mind in a tumult of doubt and fear.

"What have I done? Or not done?" she asked herself.

But once at the door of the office Nora gave her brown, unruly locks a toss, her Irish blue eyes snapped, and she walked briskly up to the desk.

"You don't need to send me home," she burst out as Miss Marvel looked up. "You just don't need to send me home. I'm going anyway."

Miss Marvel looked at the girl with eyes as calm as a mid-summer morning.

"Why are you going home, Miss Bryan? Sit down and tell me about it."

As soon had Nora expected the floor to open up and swallow her as for Miss Marvel to ask her to sit down and tell her side of the case. But she plumped down into the proffered chair and began.

"I'm tired of being the newest probationer, I'm tired of dusting and making beds,—and making beds and dusting. I've served trays till I hear them clank together in my dreams. They won't let me do anything interesting, no matter how well I could do it. I got a better grade in materia medica than Miss Music, but they won't let me give medicines because I'm only a probationer. I can spell better than the head nurse, but they won't let me write an order for a doctor because I'm only a probationer. I could do these charts beautifully. Why, I'm considered an artist at home. The senior nurse messes the charts terribly, but they won't let me touch them because I'm only a probationer—and I won't be it any longer. I'm going home. You don't need to send me. I'm going tonight."

Nora drew a long, sobbing breath. Would Miss Marvel call a committee to devise punishment for one so bold and rash? Would she even, maybe, have her arrested?

But Miss Marvel's face was non-committal. "We will speak about the going home a little later, Miss Bryan. Just now would you be kind enough to take a little note down to Miss Parks in the dispensary, and wait for an answer?"

Miss Marvel hastily wrote a few words on a bit of paper, and almost before she realized what had happened, the newest probationer found herself waiting for Miss Parks' note.

The nurse had seated her in a little alcove where she could see plainly the teeming multitude waiting anxiously, fearfully, each for his turn in the clinic. Near one door were the halt and lame, those with twisted bones and gnarled and aching joints. Some were old and gray, others, babes in their mothers' arms, all wrecks by the wayside.

By another door were men and women and children bearing on their faces and hands, perhaps, lesions marking the unholiness of the lives they lived. Here in still another group were those like unto the heathen gods, who, having eyes, see not. Old men were there, and women, too, whose besotted lives had brought this horrible punishment. Little children were there, wee innocents who, according to all fitness, had no right to be born.

Nearest to Nora was a group comprised largely of children with pinched, hungry little faces and pleading eyes.

Some showed marks of pain, others of hunger, for better understanding. "He ain't sick," she heard one mother say, "He ain't sick, but he can't learn at school." Since it don't cost much, I'll have it done. But I be dummed if I see how lumps in his neck keeps his brains from workin'."

Eagerly Nora watched the faces as each in turn was summoned by a loud voice into a clinic. Often, as the afflicted one came out, a look of dull despair was replaced by a gleam of hope. Others crept out more worn and haggard still, the last ray of hope crushed and gone. "Miss Bryan."

Nora started as if from a dream. She took the note handed her by the smiling Miss Parks and staggered blindly up the steps. Once in the open air she drew a long breath, squared her shoulders and rushed pell-mell back to Miss Marvel, little realizing she had spent two hours in the clinic.

"Here's your note—and you can't send me home. I won't go. If you try, I'll—I'll come back under another name."

Miss Marvel's kindly gray eyes twinkled. "Why this change of heart? Sit down and tell me about it."

For the second time that day Nora found herself seated in the presence of one whom malicious or mischievous upper classmen had taught her to fear. Her words tumbled over one another in their eagerness.

"I was so blue—and tired—and homesick when you sent me down there. I hated dusting and beds and trays. But I saw—I saw—Miss Marvel, you know the kind of things I saw. I wanted to take all those little ones into my arms and mother them. I wanted to know things and do things, and I couldn't be blue now, or discouraged, for I am so thankful I am I, and not lame or blind, or stuffed up so I can't breathe, or—or—you know, Miss Marvel."

"So you think you will stay with us?"

"Yes, oh yes. I'll scrub floors or anything if you will only teach me how to make humanity better and happier."

Miss Marvel smiled. "Scrubbing floors is out of a nurse's province. And we can only hope to help in making humanity better and happier. The instinct of a true nurse has come to you today."

Miss Marvel rose. Nora stumbled to her feet. The superintendent opened the top drawer of her desk, and before the girl realized what had happened a bit of fair white linen was pinned over her unruly locks, which curled in defiance of long smoothing every morning. The older woman took Nora's hand in both her own.

"I welcome you into our training school. And may God bless you, my dear, in all you do."

Nora, no longer a probationer, rushed to her room to write her mother. Miss Marvel unfolded the neglected note, and smiled as she read: "I believe it worked."

SHORTAGE OF NURSES FELT

Owing to the impending lack of trained nurses to staff the hospitals that are being opened by the United States Public Health Service, the superintendent of nurses will make an effort during her tour of inspection to obtain recruits to fill the vacancies. Public Health Service hospitals exist in all parts of the country, and offer opportunities for patriotic service in the care of disabled soldiers of the great war.

BRINGING BOOKS TO HOSPITALS

By C. W. SUMNER, LIBRARIAN, SIOUX CITY, IOWA.

THE hospital library is not a new idea, but the hospital library maintained and administered by the public library is somewhat of an innovation. In fact, the library service established November 1, 1919, by the Sioux City Public Library in all of the hospitals of the city, is called "the blessed innovation" by the patients.

This service of the Sioux City Public Library differs from that of any other work of this kind, to our knowledge, in that it is a personal service to the individual patient, such as was carried on by the American Library Association for the benefit of our soldiers and sailors. It is an outgrowth of war library experience. Our books and magazines are wheeled to the very bedside of the patient, and the personal service of the hospital librarian is at the command of every patient in the matter of book selection, story telling, reading aloud, and in fact any other work of a humanitarian nature that she may be able to do. A work that proved so beneficial to our soldiers and sailors, carried over into civil life, may be said to have tripled its value, for in our hospitals we find patients of all types and ages, and from all walks of life. Heretofore we have failed to provide the large number of patients in our hospitals with any systematic or organized plan of library service. Unfortunately, such is the situation that obtains today in practically every city in the country. The spirit of modern library development is to take the books to the people, and not wait for the people to come to the books. In many lines of library development the public library has taken its books to the people. Why not all the more incumbent upon it to take its books to those who are sick and confined in our hospitals? The opportunity lies at the very door of the public libraries of America. Here is a field of service where the library and the hospital can meet on common ground and join in a cooperative humanitarian work of great value. Library officials and hospital authorities can and should bring about the establishment of such a service.

Our work, which has been established now for a little more than a year, has proven its usefulness. Every day's experience increases our conviction that personal service on the part of a professional librarian, in assisting the convalescent patient in the selection of suitable books, in the telling of stories to the children, and in supplying them with children's literature, is one of the most important and valuable forms of work that any public library can undertake. Permanent collections of from three hundred to five hundred volumes have been placed in each of the seven hospitals of Sioux City. The hospital authorities have provided the shelving for the accommodations of the books. Arrangements have also been made for the hospitals to fumigate the books at regular periods. The book-trucks, the books, magazines, and service are provided by the public library. Each hospital is visited twice a week, in the afternoon, by the hospital librarian and her assistant. From the time of entering at one thirty, until leaving at six, there is a constant demand on them to select books, read to patients, tell stories to the children, help to cut out toys and paper dolls, and sometimes draw pictures with colored crayons. All of which is giving help, sympathy, and happiness to others. In the words of the hospital librarian, "We can leave at the end of the afternoon, conscious that the poet spoke not in vain when he said, 'Count that day lost whose low de-

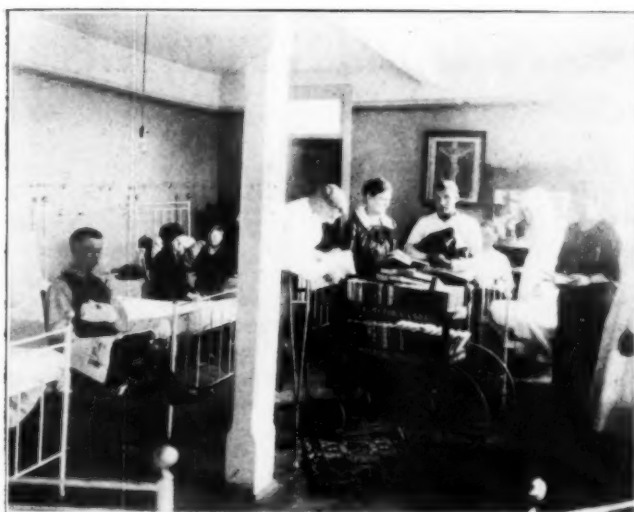
scending sun views from thy hand no worthy action done.' Here is a magnificent opportunity for the public library and the hospital to act in unison in the common cause of humanity."

It will be of interest to the readers of this article to hear from a recent report of the hospital librarian some of the comments called forth as an expression of gratitude for this work by patients: "We were greeted just the other day with this, 'Well, here you are. I have been so miserable today, you are just the folks I have been waiting for. Let me have two or three of those books—they will make me forget my misery.' From another, 'I have been in the hospital twice before this, and have spent so many lonely hours that to me this service is simply wonderful. When I have a good story I forget I have to stay two weeks longer. Be sure to come to me every day, won't you?'"



A private room in St. Joseph's Hospital, showing the "Ford" making its rounds to the patient's bedside.

"In one of the large hospitals we found a young man, an Italian; his knowledge of English being limited, we could offer him very little, but when we told him we could bring him books in Italian, his joy was unbounded. On our return visit he informed us that he had finished the ones we had left him, but would not let us have them until we brought others. It is a great satisfaction to hear him express his joy in his broken English. 'Gooda book. You cana bring me nodder one please when you get back.' In another room we find a Greek boy of ten years. 'Yes' and 'No,' 'Very much oblige,' are his only expressions in English. Here is a problem, books are out of the question, but picture puzzles, picture books, cutouts,—will they help to make him less lonely, and can we by this means introduce him to our land and language? We think so. The animal pictures in books and puzzles he now recognizes, the paper boy doll and girl doll, the baby doll, the father and mother doll. He will, after a few days, know all these English words and begin to grasp others. The first day we asked him if he would like a picture book or cut out, he said, 'No.' In turning to leave his bedside the hospital librarian saw his look of distress and disappointment, and realized that his 'no' meant 'yes.' Not



Choosing books, in the "A" floor surgical ward of St. Joseph's Hospital.

only, then, is there the opportunity for sympathy and joy giving, but the hospital librarian can sow the seeds of good citizenship. One day when we were leaving books for a little girl, her mother who was sitting with her thanked us for the service, adding the information that she had, before her marriage, been a trained nurse. She said that she had searched many, many times for reading material for patients without much success, as there was little or no provision of this sort in the hospitals in her day; and added, 'What a help this is to the hospitals and nurses.'

Numerous unsolicited letters have come to us from patients who have left the hospital, but still remember our work, and appreciate it. The following speaks for itself: "When you have recovered from a siege of sickness, and good health once more brings color to your cheeks, you look back in retrospect and think of those people who helped bring rays of sunshine into the dark days in the hospital."

Any person who has had to spend the lonesome hours following an operation in a hospital, could not resist congratulating Sioux City on its library service to the hospitals. When the little 'Ford,' containing the latest books, is wheeled up to your bed, and you see those silent friends



The convalescents in their rest-room, at St. Joseph's, are not forgotten by the traveling librarians.

brought directly to your hand, you congratulate yourself on your good fortune in being in a Sioux City hospital if it is necessary that you should be in a hospital at all. Then when you find that your choice of books is from the most cheerful selections, and that a personal interest in your particular taste is taken, you know the good old world, after all, contains thoughtful, unselfish people, and that it is a mighty desirable place for the future. It gives you a new spirit, a desire to get better and stronger, and a thought that you, too, may sometime enter into a work of this kind in your lesser way.

Yes, Sioux City, we thank you for your hospital library and its efficient service."

It may be truthfully stated that hospital library service in Sioux City is the result of faith in an idea, rather than an adequate library budget. By an intensive campaign the people of Sioux City gave the library five thousand good books as the foundation for the hospital collections. The book-trucks, costing about \$250, were given to the library by our Sunshine Club. What has been done in Sioux City along this line can be done in any city. Is it not worth while?

PUBLIC HEALTH DEPARTMENT ESTABLISHED

The University of British Columbia, though the youngest institution of its kind in Canada, has made some notable progress. It occupies temporary quarters on the Vancouver General Hospital site and a very close bond of union has thus been worked up between the two institutions. Possibly the hospital has taken advantage of this to connect up with it as closely as possible, and today several of the members of the staff of the hospital are on the staff of the University. Last year, as announced in *THE MODERN HOSPITAL*, a department of nursing was established in the University, giving a combined course leading to a degree in nursing at the end of five years. This department was inaugurated mainly through the efforts of the hospital and today is progressing beyond expectations. The director of nursing of the hospital training school, at present Miss E. I. Johns, R.N., is head of the department of nursing in the University. The enrollment in this department is twelve students. The course is splendidly arranged and indeed will be one of the most popular in the University when it is more generally known. Recently the Nursing Undergraduate Society of the University was formed.

This year a department of public health has been established in the University and Dr. R. H. Mullin, director of laboratories of the hospital, is head of this department, as professor of public health. This department has been established with the assistance, financially, of the Red Cross Society. A public health nursing course began November 15, and some forty graduate nurses were enrolled. The practical work will be given in the various health fields in Vancouver and Victoria. This year the course will cover a period of three months, but hereafter will probably run concurrently with the academic year and there will be combined with it such other work as hospital administration, teaching, etc. Through both these departments considerable extension work is planned for the coming year.

The Greater Vancouver Public Health and Welfare Association has completed a comprehensive directory of all public health and welfare agencies, with a view to linking all these up for better and mutual cooperation. This will materially assist the social service department of the Vancouver General Hospital in its work.

SOCIAL SERVICE AND HOSPITAL ADMINISTRATION*

BY IDA. M. CANNON, CHIEF OF SOCIAL SERVICE, MASSACHUSETTS GENERAL HOSPITAL, BOSTON, MASS.

IT IS my object to indicate some tendencies in the evolution of the hospital that are of concern to hospital administrators and hospital social workers, and to point out our joint responsibility in the making of the hospital of the future. I am assuming that this group recognizes the social service department as an essential part of the modern hospital.

We all know that the modern hospital has been forced to some extent by public health legislation, to take on many new social responsibilities. And if, as seems probable, the hospital of the future must grow to meet new and increasing social obligations, is there not a very real necessity for a deeper understanding between hospital administrators and hospital social workers, who presumably have special knowledge of the community needs and resources, and special skill in dealing with social problems as they are presented by the patients? I want to bring up for consideration some of the ways in which I believe we hospital social workers ought to help hospital administrators to build the hospital of the future.

I want to make clear at first that we believe our primary function is that of social work with patients. "Social case work" may be an unfamiliar term to some of you. I want you to understand what we mean by that. When we speak of social case work we mean a procedure that in principle is comparable to medical case work. Case work, whether medical or social, is based on a knowledge of the condition of the patient at a given time, an interpretation or diagnosis of the condition and the formulation of a plan of treatment, a plan that looks to the future and the fullest possible restoration of the patient. In social case work we see the patient in the hospital not merely as a medical problem, but as a member of a family group, an individual with many and various human relationships, to whom this medical condition may be simply an incident in the stream of his life, and our purpose is to see that, if possible, the patient is somehow better for this hospital experience. If not better physically, better spiritually; if he is to be restored to health, better because he has a new or renewed conception of the fullness of life; if he is to be a chronic invalid, with courage to face that fact frankly and squarely.

"Empathy" Essential in Social Service

As I am talking about the social worker, I am thinking not merely of a kindly person, who is interested in doing the friendly things that need to be done in any institution where people are accumulated. I am

The hospital is constantly being called upon to meet new social responsibilities, and to do this successfully there must be close cooperation between hospital administrators and social workers. The two services must be so closely interwoven that the patient will not realize at what point the one begins and the other leaves off.

The two strategic points for social work are at the admission of the patient and at his discharge. At these times the social worker should come forward and give the doctors and the patient the benefit of the specialized knowledge which she has gained of social conditions in the community.

The hospital social worker is at all times an interpreter between the doctor and the patient, and the community outside, and should she not also be an interpreter of the community and the patient's problems to the hospital administrators?

There should be discontent among administrators until they can get for their hospitals social workers who will give the best that can be given and discontent among social workers until, which will never be, they can fulfill their highest ideals.

not speaking of social service as the "heart of the hospital." We have no claim to that. The nurses, the doctors, the administrators must exemplify that spirit in the right sort of a hospital. But I am thinking of the social worker as a person who is bringing some specialized knowledge and specialized skill to the complicated personal problems of the patient, problems that complicate the medical condition and hamper recovery. I am thinking of the social worker as a specialist in human relationships, with the community as her field and the patient in his community and family relations as her particular interest. To serve adequately the patient and the hospital, she must be endowed with some special personal

qualities and trained in her field. But above all, she must care about and understand human beings of many kinds. She must have that quality of "empathy" which Dr. Southard so ably interpreted. He contrasted empathy with sympathy, as meaning not merely feeling for the patient, but the capacity of feeling oneself in the patient's place. The foreign-born and foreign-speaking patient in the hospital, who comes without knowing our language or our ways, alone, forlorn, often, of course, absorbed in his physical discomfort, needs that kind of understanding. The social worker's first task is to realize how that patient really feels, and to get herself into the attitude of really feeling the way the patient does. She must see his situation objectively, not with the prejudice of the sick person, but with the understanding of the sick person, seeing the whole situation more truly than the patient can possibly see it while he is ill. When we lose the vividness of our understanding of the patient, we have lost, I believe, the essential capacity that makes us useful in the institution where routine of procedure and thought are prone to develop.

Personal Relationship Restored

Some of our finest and most eminent medical men have rather resented the fact that the social worker has come into the hospital for this personal relationship with the patients. They have said the medicine, meaning doctors, cannot sacrifice that personal, human relationship between the doctor and the patient, that precious thing that is probably one of the strongest forces in the restoration to health. Let us agree that the loss of this relationship is most unfortunate, but may we not also agree that it is one of the inevitable sacrifices that has come with organized and institutionalized medicine as we now find it? The usual lack of continuity of medical service and the pressure of work on the visiting physician, as well as the impracticability of his knowing at first hand the

*Read at the Twenty-Second Annual Convention of the American Hospital Association, Montreal, Canada, October 4-8, 1920.

home conditions of the patients, makes really vital personal relationship between the hospital physician and the patient very rare. I maintain that the social worker has come into the hospital because of organized medicine. And I see social work, I mean skilled social work, coming to organized medicine to restore in part that which has been lost, and to work so closely with the doctor in his case work that he is made conscious of those personal and human aspects of the patient's condition. The doctor must of necessity concentrate on the medical aspects of the case, but he should not be separated from the social side. If the treatment involves influencing the patient to change his habits or mode of life, the social worker may be the one to see that the plan is put through. But to be truly effective, she must do this in close cooperation with the doctor, her plan closely interwoven with his, so that the patient has medical-social treatment, which is an interweaving of both services, and not medical treatment here and social treatment there. Such work is possible only where there is skill on both sides, with mutual understanding and respect.

It is along the lines of medical-social case work that the strongest departments have been developed in hospitals. It was that conception that called us, as social workers, into hospital service. We went there because we cared about using our skill to help people in adversity. And, to my mind, social case work must always be the foundation on which any superstructure of other types of social service in the hospital can be safely built, for through the realities of our social case work we are always keeping vividly before us the challenge of real service to the patients. We are safeguarded from becoming routinists since we are constantly facing final results.

Tendency Toward Administrative Function

Now, as time has gone on, we find that there is a tendency to draw the social worker into various administrative functions in the hospital. There are some hospitals that very definitely recognize her as a part of the hospital administration. Are they doing this because she is a person who is ready to be useful to the patient wherever possible, or is there some special reason for doing it? Personally, I believe, on knowing more and more of the problems of the hospital administrators, that there are some phases of hospital administration wherein the trained worker, because she has specialized knowledge and specialized skill, may be of definite assistance.

The specialized knowledge of the trained hospital social worker ought to include an intimate knowledge of community life, and special knowledge of the community from which the patients come, the standards of living, the varied nationalities, the chief industries, the organized agencies, both public and private, for public health and community welfare. She should have a clear conception of the relation of the hospital to these other social agencies. She should be familiar with public health and social legislation that affects individual welfare. The skill of the social worker should make these facilities of use to the patients and the hospital.

Aside from case work, social workers have been called upon to assist in some distinctly administrative functions of the dispensary and the hospital. Among these is the admission of patients. There are among the administrators many skeptics who feel that the social worker should have no concern with admission of patients, that it is entirely a medical function. Certainly the social worker should have no concern with the medical suitability of patients for admission. No one would presume that. But is the judgment of the admitting officer chiefly a medical

or a social one? The superficial medical judgment is checked up in the clinic. But the final decision as to whether the patient is economically suitable for admission, whether or not he should be admitted free, whether or not he should pay for medicine and x-rays, and, on admission to the wards, a fair rate of board—these are all decisions that assume some knowledge of the economic situation of the patient. Now there are hospital superintendents who believe that these judgments are best made by those who know something of the standards of living of the patients. Because these decisions must be rather hurried, do they not need to be based on pertinent knowledge?

Several hospitals have social workers at the admission desk. The Pennsylvania and Protestant Episcopal hospitals of Philadelphia have social workers who determine the board rate, and I understand from the superintendents that the plan is working well. The social worker at the admission desk is more common in the dispensary. The Boston Dispensary was one of the first to develop this idea, and Miss Janet Thornton's report on her work there is very interesting and instructive.* To those hospital superintendents who object to placing the social worker in the admission office I would suggest that they make use of the studies of family budgets and cost of living, as they have been studied by social workers who are working with these economic family problems.

Social Work Has Two Strategic Points

There are, I believe, two strategic points at which the social point of view is important in hospital administration. These are on admission and on the discharge of patients. It is at these two points that the hospital is making its most vital contact with the community. A thoughtful consideration of the stream of patients asking for admission helps the hospital to interpret the community's needs, and if we are to safeguard carefully the work the hospital has done, we ought to know something of the conditions to which the patient is to return.

One of the common requests that comes to the social service department is that of freeing the wards of chronic cases. In a survey we made a few years ago, almost all the departments reported that this was one of the special duties the administration had placed upon them. If freeing the wards of chronic cases is going to make it possible to admit other patients, it certainly is a proper thing for us to do. But there is one plea that I wish to make, and that is that the discharge of patients should not always be construed to be an emergency. This will have a familiar sound to hospital social workers. At two o'clock in the afternoon we have word that a patient must be gotten out that afternoon, or at least by the next morning. He lives in a lodging house twenty-five miles from the hospital, so that the routine discharge cannot care for him. The visiting physician has made rounds and suddenly discovered that the patient is ready to go out. They may want to take in some new and interesting cases for clinical teaching. But we social workers cannot always do good social work on the emergency basis. And I question whether a discharge need ever be an emergency. How can we anticipate discharge more definitely? Discharge means to us not merely the transportation of that patient to his home, but rather the application of our principles of social case work, which are to secure our facts before we act, and to make a plan with the patient, a far-sighted plan, and not just a temporary, makeshift one. The question of proper discharge of patients is cer-

*"Social Service and Dispensary Admission Service," *THE MODERN HOSPITAL*, April, 1919.

tainly a thing for us to help with, but if we are to help adequately, we ought to get at it earlier than just at the point of discharge.

Social Work Successful in this Ward

We have had a very interesting experience in one of our wards at the Massachusetts General Hospital, the orthopedic ward. A social worker is in charge of the orthopedic social work for the dispensary and the ward. There is continuous outpatient and ward medical service. The social service department is responsible for interviewing and making a plan for admission for every patient who is recommended for the ward. Previously the patient went to the admission desk, was told that there was a long waiting list, and that he would be notified when there was a vacancy in the ward. When the time finally came, notice was sent to the patient, but by that time the patient had probably gone somewhere else, or established himself with some quack treatment, or moved away. A day or two was lost in finding out all this, and then other patients were sent for. Thus several days of care in the ward were lost. Under the present plan, the interview with the social worker anticipates any possible social complication that might hamper the patient's coming in. We make the patient understand that it is going to be a little time before he can be admitted. We explain that it is not important for him to be admitted immediately. We get the nearest telephone number and make the patient realize that if he moves it is important that we should know, so that we can get immediate word to him. Then when a vacancy occurs, the social worker is notified and she gets in touch with the patient in the shortest possible time. The first year after the plan was started, there were 159 more days' treatment than there had been the year before. Such a plan means that the fullest use of the ward beds is secured.

Also, there are certain types of long-time cases, which the doctors are not operating on now unless there is a social plan for convalescence. The Albee operation, for instance, is not done by our orthopedic men unless, previous to that operation, social service has been able to plan a convalescence of six months or a year. That means hospital discharge at the earliest possible moment after the operation, thus relieving the ward for another patient. It is all a part of a plan, not just emergency work. It is real social case work for that patient. As to the removal of chronic cases, there are many interesting experiences among workers who have gone into hospitals. I know of one social worker who recently went into a hospital in Connecticut, and found three patients who had been in the wards for over a year, because no one happened to know where else they might be sent. That hospital was supposed to be for acute cases, but it seemed inhuman to turn them out. Within a month, these patients were all carefully placed by the social worker, who knew the community resources.

Patients Especially in Need of Social Work

There is one group of patients I want to plead for, and that is the patients "discharged against advice." I am always sorry to see that on a discharge slip, because I know there is always something back of it. Is it because of some social situation at home, because that patient had become worried and restless, and felt that he had to get home and go to work, or is it some misunderstanding in the hospital? Recently a Polish man was referred to a hospital social worker because he insisted on going home after a week in the hospital, although

he was seriously in need of an operation. Through an interpreter, the social worker found that the man had anticipated only ten days in the hospital, and had left his wife only enough to pay for food for that length of time. The rest of his savings had gone to pay the hospital bill in advance. For various reasons of convenience to the surgical service, the operation had not been performed, but meantime the precious savings were being used up. With the fact in hand, the social worker arranged to have the patient stay and the family cared for. It always seems to me that the patient discharged against advice is a possible sore spot in the community that ought not to be there. I believe that the hospital superintendent should be assured that at least everything has been done that could be done to correct any misunderstanding that might have existed.

The patient who is refused admission to hospitals has also become a concern of hospital social workers. Several hospitals have assumed an attitude of responsibility for the patients who come to them for care. Patients come to a hospital without discrimination. They do not know its limitations. They think of it only as a hospital. Just as a patient who is looking for medical assistance may seek a doctor's sign, without any discrimination as to what kind of a doctor he may be, so patients will go to a hospital without any kind of discrimination. Is it not the responsibility of the hospital admission office to be sure that patient is guided to the place where he belongs? Two hospitals, at least, have assumed that to be a proper function for the social service department.

Place of Social Work in the Clinic

In dispensaries, social workers have been drawn into administrative functions in many of the clinics. As the doctors have worked more closely with the social service department, the tendency has been to ask that the social worker become as much a part of the clinic as the nurse, to make social treatment so much a part of the treatment there that the patient does not know where the medical work ends and the social work begins. There has been a tendency to absorb gradually the time of the worker in these clinics until she has become, in a way, an administrator of the clinic. She has been the one to see that the patient really went to the doctor, that the patient received the service that he came for, that the patient and the record together were ready for the busy physician, that the patient received the service that he came for. Because of the bulk of these duties, the social worker is often swamped in administrative detail. Is it properly a social service function, or are we trying to patch up poorly managed clinics? I believe we could well give this subject very careful study; indeed, we might at this point borrow from industries one of their methods which might be very helpful to us. I refer to the method of job analysis, of having a person with an analytical mind studying procedures in a given department, studying the whole problem there, seeing what kinds of functions are necessarily involved and the kind of people needed to perform those functions. We should then have a basis for the organization of the various functions. I think that job analysis applied to our clinics would reveal the place where the social worker, with her special knowledge, is needed, and whether some other kind of person is not also needed. At present, the administrative function of the social worker in the clinic is crowding out her social case work. She is too busy to get into the homes, to keep fresh and clear before her the social situation in the background. Thus she becomes an institutionalized person, and loses the biggest contribution she

has to give to the hospital, that of never thinking in routine, of keeping always fresh the community and patient's point of view.

Another phase of social work that has rather curiously and unexpectedly come to the social service department in a few cases has been in connection with the domestic personnel of the hospital. Hospital administrators are turning to social workers for help with superannuated employees, young girls employed in the hospital who may be facing pregnancy, employees who have become ill, perhaps chronic cases who need care, personal problems within the families of some of those employees, complicated, difficult social problems of broken families, delinquent children that are troubling the mother, and various difficulties that have come to the attention of those persons who are in charge of the personnel in the hospital.

Social Record Should Be Included

Then there is the question of the hospital record. It seems very strange that in many splendid hospital records, with the careful analysis of all the examinations, and the careful statements of the treatment of the patient, there is no statement of what happened to the patient afterward. What really was done to finish up the story? It seems to me that often the story begins where the records leave off. In many of the hospitals, the social case record has been summarized and placed in the medical record; the end results are sent to the record room to finish up the medical history, which often necessarily covers social as well as medical data. It is obvious that many new problems are coming to the hospital in its growing community relationship. Special emphasis is given to these problems in relation to tuberculosis, workmen's compensation and industrial disease, and the new venereal disease clinics. It seems to me that the test of this rather hasty legislation must come out of a real knowledge of what it means to patients who are the victims of these various diseases. And where can we get the testimony that should guide these policies, except out of social case work—the knowledge of what is happening to the individual patient? Is it not for hospital administrators to help determine the legislation, if it is to best serve their patients and the community?

Throughout, I believe, the hospital social worker must be an interpreter. We have thought of her as an interpreter between the doctor and the patient, and the community outside. I wonder if she should not also be an interpreter of the community to the hospital administrators?

I should like to make hospital administrators feel that they cannot be content without the very best that social work has to give, and that social workers should not be appointed in their hospitals until they can get people who are really bringing the best that social work has to give, not just friendly, sympathetic points of view, but specialized knowledge and specialized skill. We are very much interested in the survey of hospital work that has just been completed. Dr. Richardson, who made the field study, said she never saw such a lot of discontented people as our hospital social workers, none of them feeling that she is fully meeting the problems before her. I hope that the discontent, which, I believe, is a divine discontent, is something that is going to stay with us, and that we will continue to be conscious that we have a bigger thing than we can encompass, which ought nevertheless to stimulate us to seek the best that social work has to give to the increasing problems of the modern hospital administrators.

LO, THE POOR INTERN!

The hospital intern is generally conceded to have a hard lot. Responsible to attendants, to superintendents, to patients, to relatives; often (perhaps deservedly) abused by all; working, if he be at all conscientious, many hours a day; with blame for mistakes and often with scant praise for work well done; one may well wonder that the breed persists. Many months of the intern's career must be spent in doing what he himself is prone to call "scut work"—i. e., urinalyses, blood counts, and all the rest of clinical pathology; or dressing the uninteresting surgical cases; giving anesthetics; and, all too often, "riding the bus." In these days of residents and assistant residents, many of the men just graduated from medical schools look askance at the hospitals which have installed the "resident system" and turn their attention to hospitals which are perhaps less desirable, on the ground that they can there "get more to do." This point of view is particularly popular with men seeking surgical internships. It is the fashion with even the least experienced to scorn the lowly hemorrhoid and to long for a chance to "do a gall bladder" or a hysterectomy.

What the intern wants (of course leaving the lazy ones out of consideration) is "plenty to do." He is tired of being taught, tired of standing round while other men prescribe, tired of pulling out stitches someone else has put in. He wants so much first-hand experience in the hospital that when he is turned loose upon the sick public, he will have confidence and ability enough to "get away with it."

Some hospitals cling to the idea that in the ambulance service the intern gets valuable first-hand experience in meeting emergencies. Requiring trained doctors to spend many hours a week "riding the bus" is something which more and more hospitals are coming to regard as foolish and unprofitable. For the intern who clings to the tail end of an ambulance is practically never called upon to use his store of medical knowledge. A little common sense, presence of mind, and the ability to tell whether or not a case really requires hospital care are the only qualifications which rank the "ambulance surgeon" higher than a footman. Many progressive hospitals are clearly demonstrating that drivers or orderlies with a working knowledge of first aid can do creditable and satisfactory work as ambulance surgeons. Thus the intern is kept in the accident and admitting rooms, where he spends more time on his cases than he does on street traffic. Only a chance emergency obstetrical case would require the presence of a doctor; and this could be very well provided for without such unwarrantable loss of time as on the ordinary run of ambulance cases. When an intern in any of our accredited hospitals, with first class attending physicians and surgeons, begins to complain of having too much laboratory work to do, or of having too little responsibility, the voice of his complaint may well merit little consideration. Given honesty and industry on his part, his internship will be as profitable as he could wish. But when he begins to complain of being obliged to waste his time and energies on the city streets, hospital authorities may well listen to him, or else keep silent when they find themselves equipped with second-rate intern staffs.—*Medical Record*, December 11, 1920.

Emergency relief stations for supplying fifty-four Vienna hospitals and children's institutions throughout Austria with drugs, clothing, and sanitary appliances have been established by the American Red Cross in Vienna and Budapest. Maj. Robert Davis is director of relief service.

NEW ZEALAND ARCHITECT GIVES IMPRESSIONS OF AMERICAN HOSPITALS

MR. G. W. ALLSOP, architect to the Auckland Hospital and Charitable Aid Board of New Zealand, took an eight months' trip through Canada, England, Ireland, Scotland, France, Switzerland, Italy and the United States, and now from New Zealand he writes some of his impressions of American hospitals.

His object was to inspect modern hospitals and note their general design, the materials used for internal finishings, the design of sanitary fittings and how installed, the cooking fittings, and the multiplicity of other matters common to all hospitals. Having spent five years in London studying hospital design, and obtained his degree by taking this as a special subject, being architect to four hospital boards, and having devoted practically all of his time to hospital work during the last fifteen years, he would seem to be qualified to express an opinion upon what he has seen. He has done so in the following way:

"In New Zealand, where we have a beautiful climate, we give great attention to flooding our wards with fresh air and sunlight; we also give great attention to cross ventilation of wards and sanitary towers. Our medical authorities are great believers in the curative properties of daylight, sunlight, and fresh air.

"In the American institutions that I saw, about twenty of them, I noted a great absence of all these points. No doubt your severe climate influences your cross ventilation, but your wards impressed me as being dull and cheerless. I noted that the area of window space was considerably less than the area of wall space. There is no reason why this should not be reversed (as in our hospital); then your patients would have the benefit of the curative properties of more daylight, sunlight, and in the mild weather, of more fresh air.

"All windows should have fan lights over two feet deep, hinged at the top, swinging outwards. Most of your windows have no fan lights; of the few that had, I never saw one open. Again, I noted a considerable space between the tops of windows and ceiling; this means a pocket of stagnant air. Obviously this space is of no advantage to the patients and adds considerably to the cost of the building. We always carry our fan lights to within three inches of the ceiling. Our authorities allow twelve hundred cubic feet of air per bed, and will not allow any measurement of height above the top of the fan light. When fan lights are hinged at the bottom and fall inwards, the air, carrying a certain amount of dust, is turned up to the ceiling, and gradually discolors it; it also causes down-draughts on the patients. This is obviated by putting cheeks at the sides; then a pocket is formed, and I have seen dust over two inches thick lying at the bottom. Now, obviously, when a strong wind or gust blows, this dust is carried into the wards. But when the fan light is hung at the top, it swings out and forms a hood over the opening, preventing the rain from beating in, and the air is not deflected onto the ceiling or patients, and no dust accumulates. I have installed hundreds of these, and many of them with us stand open all the year round, except when wards are being fumigated. Again, we place every bed between a pair of windows in all wards, whether of one or more beds. This gives more light and air to each patient. I note you do not study this point.

"Many of your hospitals have chutes for soiled linen

and some for rubbish. With but one exception, they all had small doors opening into the corridors or passages. The advisability of this installation is, in my opinion, doubtful. When chutes do not exist, the custom is to place the soiled linen in bags, and these are taken away by the porter. If the chute exists, the soiled clothes are carried to and dropped down the chute. It is admitted, and can be seen, that the chutes become soiled; then, as the air inside the building is warmer than outside, these chutes become inlet ventilation shafts every time a door is opened, or when doors are carelessly left open; consequently, air ascending this fouled chute is discharged inside the building. The fact of a cold shower being fitted at the top of the chute is no guarantee that the walls will be thoroughly cleansed. I did not find them so. It is not advisable to study the saving of a small amount of work of the nurse or porter to the detriment of the health of the inmates. If the chute be omitted and a small room provided near the lift for soiled linen, it should meet all requirements, and would cost considerably less. In the Ross Pavilion, at the Royal Victoria Hospital, Montreal, I was informed these chutes were omitted intentionally, and in my opinion this is the best designed hospital building in Canada.

Modern Hospital Radiators Not Used

"While all your hospitals have a large number of radiators, steam or water, I did not see a single instance of a modern hospital radiator in use. The radiators consisted of two or more columns in a section, the sections were in most cases close together, no wide space being provided for cleaning; the radiators were fixed to the floor and close to the wall, so that it was very difficult to clean under or behind them. The hospital radiator we use has one column in a section, each section spaced wide apart for ease of cleaning, and the radiator fixed nine inches up from the floor to a bracket screwed to the wall. The radiator swings on this bracket like a gate, and can be pulled out from the wall at right angles, so that the cleaning of the floor, wall, and back of the radiator is a matter of simplicity. These gate radiators have been in use for many years. I installed many of them years ago, also recently, and they are quite satisfactory. Radiators are not ideal fittings to install in operating rooms, owing to the many recesses forming lodgements for dust and germs. This can be overcome to a great extent by slipping over the radiator white linen covers; these can be washed frequently, they look well and serve a useful purpose. In three hospitals, only, did I see them in use; they could, with advantage, be installed in all.

Sanitary Fittings Could Be Improved

"In the sanitary fittings, such as bed-pan sinks, sinks, and lavatory basins, I was disappointed. Most of the fittings I saw were similar to those used in domestic buildings; special fittings for years past have been designed, catalogued and installed in hundreds of British hospitals. All of the specially designed fixtures are supported on brackets, built into the wall, no portion rests upon the floor; they have no legs, consequently it is a simple matter to clean the floor under and around them. In no hospital did I see a urine bottle washer attached

to the bed-pan sink. This is very useful, it cleans the bottle thoroughly and quickly, and prevents the nurses having to do this in the old fashioned way. In some hospitals there was no rising jet fitted to their bed-pan sinks.

"In one large hospital I visited in Canada they had the most remarkable fitting for a bed-pan sink I have yet seen. On the floor was fixed a cast iron trap and from this arose a cone four inches wide at the bottom and about twenty-four inches wide at the top; the height was about thirty inches. Over the cone and about two feet above it, was a tap with a piece of rubber hose attached. The cone was made of copper, polished inside and out, and the appearance was very nice, but a more unsuitable, out of date, and obsolete apparatus I have never seen

installed, and hope I never shall. There was no flushing rim, no rising jet for washing bed pans, and no bottle washer. Why the medical and health authorities allowed it to be installed in a new building is beyond my conception. They are installed in operating rooms and all sanitary rooms; there are a large number of them in the building, but in all fairness to the nurses and patients, they should be taken out and replaced with modern fire-clay sinks with all fittings as I have previously described. It will be obvious from this that a building may be of recent erection but not modern. I was told this fitting was a copy of those used in a hospital in the United States. I did not notice them in your country, but of course time would not permit me to visit all your hospitals.

KEEPING UP WITH ADMINISTRATIVE PROGRESS*

BY HAROLD W. HERSEY, M.D., SUPERINTENDENT, THE NEW HAVEN HOSPITAL, NEW HAVEN, CONN.

DURING the past five or six years business activities of all kinds have been conducted under abnormal conditions. Briefly, these conditions include inflated wages, unsettled labor conditions, scarcity of manufactured products, uncertainty in their delivery, readjustments in social conditions, and a continuous shrinkage in the value of the dollar. The position of the business executive has in consequence been one of extreme tension, requiring constant vigil and unwonted caution.

The hospital administrator has had his full share of these difficulties. Indeed, with the less favorable financial conditions under which he "carries on," his burden has at times been extreme. There is an old saying that "misery loves company," and while the position of executive is usually of one's own choosing and should in no wise be likened unto a bed of thorns, the deduction is that in difficult times one should consult with his confreres and profit by their experience. How many of the various business executives may be considered as confreres and how much we may profit by their observations is one of the purposes of this paper to discuss.

Dean Johnson of the New York University School of Commerce states that business may be divided into three classes: "first, the production and sale of goods—this kind of business is commonly known as industry and embraces all kinds of manufacturing; second, the purchase and sale of commodities (by commodities is meant anything which has value and is therefore salable); third, the purchase and sale of services, whether the services of human beings or the uses of material things."

Primarily, the object of all hospitals is to render to those incapacitated by illness or injury, a highly specialized type of service. Economically, the purpose of the hospital is to restore to the community an individual as nearly physically sound as possible, in the shortest period. It is the thoroughness of this restoration, in consideration of the time expended, which denotes the degree of efficiency of the hospital. Since the hospital deals with service, it falls into the third group of business.

No duties are more exacting than those of service, and in none is the organization more subject to criticism. It is necessary for the executive to avail himself of every method and every opportunity to check up his organization and to see that it ranks high in efficiency and production when compared with the standards set by representative organizations elsewhere. In order to make

these comparisons it is necessary that definite standards of comparison be available, that one visualize the comparisons, and keep in touch with the business progress of the outside world.

Efficient hospital service requires of the executive broad knowledge and deep understanding of both medicine and business. The officer must be a planner and an organizer. He must possess a working knowledge of mechanical and electrical engineering, heating, lighting, and refrigeration. He should be a thorough accountant, a careful and conscientious buyer, a systematic storekeeper, and have a thorough knowledge of modern laundry, kitchen, and house management. But above all, he must deliver from his organization medical and surgical service of a high order, conforming in every way with accepted standards.

Medical and Surgical Organization Progressing

Let us first turn our attention to the medical and surgical organization. Medicine itself has made rapid progress and the ideas of today are not the ideas of yesterday. Medical and surgical technique have improved, specialties have developed, diagnostic and therapeutic measures have advanced, preventive medicine and public health have become established. In the field of nursing and the training of nurses a large problem has arisen, for modern medicine requires more careful attention to nursing detail, while the long hours and menial tasks formerly expected of nurses no longer seem just. Coupled with the fact that other occupations and professions offer definite hours and congenial surroundings with early remuneration and in consequence fewer applicants are received by the training schools, the nursing problem is requiring the best efforts of both hospital executives and superintendents of nursing. We hear many solutions of the nursing problem and much discussion. In my judgment, any readjustment tending to lower the nursing standards will fail in accomplishment. In order to attract a desirable type of young women into the training schools, we must offer something better than at present, be this fewer hours of duty, more congenial surroundings, or a more highly specialized training. I believe that before many years a university degree for nurses will be available at many hospitals through affiliation with universities.

Much has been written about hospital standardization and it has been widely discussed. Much more should be written and greater discussion encouraged, for the medical organizations, although vastly improved, are in

*Read before the Twenty-Second Annual Convention of the American Hospital Association, Montreal, Canada, October 4-8, 1920.

many instances a long way from perfect. An excellent organization exists in the American College of Surgeons and the work contributed by them has done much to stimulate many hospitals to renewed efforts. Organized at Washington, D. C., in 1913, among the purposes being "the betterment of medical education and of the clinical practice of medicine," it has already accomplished much that is beneficial and has accumulated valuable data. Its chief effort for the hospitals has been to establish a minimum standard that every hospital may hope to attain. Briefly, this standard calls for an organized staff of reputable, competent physicians and surgeons. Monthly meetings should be held at which the clinical work of the staff, both successful and unsuccessful, is openly discussed and analyzed, with a view to preventing a repetition of mistakes and profiting by the success of others. Accurate and complete records should be filed and adequate x-ray and clinical laboratories maintained. It is interesting to note that a survey made by this college in 1918 and 1919 shows that of 671 general hospitals of 100 or more beds in the United States and Canada only 198 meet the minimum standard.

It should be the duty of every hospital executive constantly to bring before his board the necessity of conforming with these minimum requirements and to relinquish his effort in no wise until the medical organization is so founded. The hospital which falls short of its duty to its patients in guaranteeing efficient and modern treatment cannot hope to attain high rank or to hold itself above reproach.

So much for the medical and surgical organization. Let us now consider the business organization. Within the past decade it has been recognized that business is a science and that its phenomenon could be explained by certain laws, just as the phenomenon of physics and chemistry could be explained by certain laws. The universities finally awoke to the fact that it was just as essential to graduate students well grounded in business principles as it was to train young men in the fundamentals of arts, language, law and medicine. At present schools of business administration are established in many of the universities, among them the University of Harvard, Pennsylvania, Michigan, Illinois, New York, and others. Unfortunately for most of us, these schools have developed too late for us to avail ourselves of the splendid training thus offered; but this fact merely means that our efforts to keep in touch with business progress and administration must be along well organized lines, always with a definite purpose in view.

How may such efforts be most productive? In my judgment there is no better way than by securing some well recognized course in business administration and devoting a definite period weekly to its study. Right here I wish to say a word of warning. In any reading of this sort there is much that is good and much that is of little value. To obtain the best results, recognized authorities should be consulted, men broad in mind and purpose associated with leading universities or institutions. There are many good courses on modern business. One of the best that I know of is the course of the Alexander Hamilton Institute. A few hours weekly spent in its reading cannot fail to stimulate any executive to a broader conception of business principles. It is fair to add that these volumes are in the offices of many of our leading industrial executives.

There is another reason why the hospital executive should make every effort to keep in touch with business methods, and outside business in particular. As the older men retire from the executive boards of the hospital, the

tendency is more and more to replace them by young, energetic business men. In order to convince them that new steps in the hospital organization should be carried out, the hospital executive must present his facts in convincing hole-proof statements. He can do this only by a thorough knowledge of business principles.

Comparisons of Other Institutions Efficacious

Admitting, therefore, that a knowledge of outside business is absolutely essential, let us now proceed a step further and consider a large industrial plant. During the past few years I have been fortunate enough to visit several. The procedure in all well organized plants is much the same. You enter a clean, orderly corridor and immediately are met by an attendant who offers service. Telephonic communication is established with the executive you are to visit and a messenger shows you to the office. After a brief statement of the departments in which you are interested, you are personally conducted through the shops, power plant, storerooms, accounting, and statistical departments. You make mental note of one thing after another. Later, in the seclusion of your own office, you find that many of their methods may be applied to your own organization. You recall, for example, that each line of pipe from their power plant was of a distinguishing color, that their organization perhaps exceeded yours in courtesy or promptitude, or that their statistical department contained data valuable to you. This same method of visiting and comparing should be carried out at frequent intervals in other industries, and is applicable to large hotels, restaurants, dining halls, and commercial laundries.

Last year I made a tour of the Middle West and of Eastern Canada, visiting, during that survey, nineteen of the leading hospitals, asking numerous questions (as any of the nineteen executives will agree) and collecting valuable data. My reception was most cordial in every instance, and the material obtained has been of tremendous value to me during the past year.

In the American Hospital Association is one of the greatest powers for good available to one interested in hospital administration. It is the privilege of everyone in charge of a hospital to become an active member of this organization and the alert executive will avail himself of this privilege. In no way can the executive better keep abreast of the times than by attendance at such meetings. It should be the duty of the hospital superintendent to attend these annual conferences. It should be the duty of the executive board to send their superintendent to these meetings, to insist upon attendance during the full meeting and to see that the expenses for attendance are defrayed by the hospital. The amount expended will be returned to the hospital ten-fold by increased efficiency and energy. Just as the executive should represent the institution at the conference of his association, the superintendent of nurses should attend the conference of the National League of Nursing Education and the dietitian should attend the meeting of the American Dietetic Association.

In New York and in many other large cities there is frequently a hotel men's conference and exhibit. Since hotel management has many problems in common with hospital management, much may be gained by attendance at these exhibits.

For many years a group of representative hospital executives have met occasionally during the year in Boston and after dinner a round-table for the discussion of hospital problems has been held. A similar organization has met in New York. These afford one of the best

methods of getting together and similar meetings should produce results in any part of the country. The state organization is on a similar plan. In Connecticut we have recently organized the Connecticut Hospital Association and expect to accomplish much this coming winter.

No executive can decide wisely unless he knows the actual conditions in his plant. He should, therefore, inspect all his departments at frequent intervals and should have daily reports from and conferences with the head of each department. This cooperation may be carried further by monthly meetings between the resident staff and the executive staff for discussion of purely administrative problems. With the resident system, many of the men have advanced from service as intern to assistant resident or resident and these young men look at the hospital with the eye of an executive. Their criticisms are just and their arguments sound. I have found such meetings of great benefit. At the Massachusetts General Hospital, before the war, we had a fair sized executive staff and during the winter held weekly administrative conferences. The discussions were of great value to all.

Scientific Principles of Business Employed

More and more the business world has come to represent its dealings by the graphic method or charting. By charts one is able to lay his facts before others in a convincing manner and this is the real purpose of collecting data. The large industries chart their departmental wages, their total pay roll, their production, the amount of stock on hand, the stock withdrawn, the turnover in labor and many other things. Charting is used by all banking concerns and by all statistical bureaus. It is absolutely essential for every man to become interested in financial conditions throughout the world and not only to understand the various types of charts but to be able to chart his own business transactions. At the New Haven Hospital we have recently been charting some of our daily procedures, such as admission and discharges of patients, operations, number of nurses of various groups on and off duty, monthly expenditures, receipts, and the like. Charting is applicable to almost any phase of hospital administration, and we expect to work out a small number of charts which will require but a few minutes time daily and put us in closer contact with conditions.

Emerson in his "Twelve Principles of Efficiency" gives as the third principle, "competent counsel," and states that competent counsel is necessarily derived from many minds. It is sometimes advisable when a department is not running smoothly to call in and consult an expert in the particular branch concerned. The value of this is two-fold. It allows the executive to view the situation through other eyes and lends weight in presenting arguments to his administrative board. On my last visit to Baltimore, Dr. Smith informed me that he had just completed a survey of his laundry, by a laundry expert, with the result that they had installed new machinery and had, consequently, increased the efficiency and reduced the pay roll. Through the courtesy of a large industrial plant, the New Haven Hospital has recently had a survey made by experts from the various departments of that highly efficient organization. The report submitted contained the opinions and recommendations of men highly trained in accounting, business efficiency, engineering, store-keeping, and hotel management. It is too early yet to state what the result of such a report will be, but it contains many recommendations of value and I anticipate that much good may result. It is quite possible that other hospi-

tals could arrange for a similar survey to their advantage. Certain it is that I have always found industrial executives willing and anxious to cooperate in every possible way and I believe that all hospitals would profit by a closer affiliation with leading industrial plants.

The various agricultural colleges and chambers of commerce publish daily or weekly market bulletins stating the receipt of market commodities and the prevailing prices. These bulletins may be obtained at little or no expense and are of value to the buyer in securing advantageous prices. The Hospital Bureau of Standards and Supplies of New York affords another excellent opportunity for the buyer to keep in touch with current prices and to purchase at an advantage. The purpose of this organization, to quote from the organization agreement, is "cooperation in establishing uniform standards as to quality and kind of supplies—and of purchasing the same in accordance with definite specifications under continuing or other general agreements." It is quite possible that if similar organizations were established in other parts of the country, similar beneficial results would accrue.

Certain statistics are required in every hospital in order to keep in touch with the various sources of income and of expenditure. Most hospitals have these statistics in various forms. Most institutions issue an annual report containing valuable data. These reports and statistics should be and are exchanged and studied by the various executives. And yet in collecting hospital forms and data, what a variety of methods, shapes, sizes, and colors one encounters. Each hospital has worked out its own system in accordance with its needs. No two accounting systems will be exactly alike, some being on one basis, some on another. Does it not seem odd that with hospitals conducted so nearly on similar lines, no more uniform systems of statistics and accounts are available? How much greater benefit would result, and how much greater would be the ease and satisfaction in comparison, if a group of hospitals, similar in purpose and size, would standardize their accounting systems and statistical forms and exchange weekly statements. I know of no way in which more valuable data could be obtained.

Although the board of directors of the average hospital has seen its annual deficit steadily mounting during the past few years, the more conservative have viewed with skepticism the advisability of a public appeal for funds, or a drive as it is commonly called. I do not share this feeling and see no reason why the support of the hospitals should fall upon a few. It should be as much the duty of the citizens to support the hospitals as it is to maintain the public schools, public libraries, the highways and water systems. Every citizen should put aside annually a sum for hospital support, as he would for society or club dues. The weekly expenditure of the average family for soda and moving pictures, if totaled and proportioned to the hospitals, would maintain modern institutions of the highest order. Such a contribution would work no hardship. The average citizen, however, would never entertain such a proposition, even should he have assurance that the chances were 100 to 1 that he would shortly become a patient in the hospital. He would gamble on the one chance and let someone else bear the burden, trusting to fortune that an institution of high order would be available, should he need it. I believe that the state of Iowa had legislation enacted by which a small amount per person is set aside from its taxes to care for the indigent poor. Other states may have a similar arrangement. I am not familiar with its workings. If there are executives present from Iowa it would be interesting to learn its advantages and disadvantages.

Last year the directors of the New Haven Hospital conducted an intensive drive of one week's duration. The response of the New Haven public was most generous and \$233,000 was realized. The expenses of the campaign were approximately \$10,500. In our own case, therefore, the hospital drive has proved both feasible and beneficial. It should be carefully considered elsewhere.

Some hospitals conduct courses for those wishing to train as hospital executives. The advantage to an instructor in conducting classes is recognized, for in order to present new facts of interest to his students an instructor must know and review his subject at frequent intervals. Added to this is the stimulus derived from the questions of the students. A six months course was formerly given at the Massachusetts General Hospital. Two applicants were accepted for each class and spent their time observing and doing actual work in different departments. This afforded an excellent training for the applicants, usually young women, and most of them are today holding desirable positions throughout the country as hospital executives.

I now turn to the part literature should play in this subject. The magazines useful to the hospital executive may be considered in three classes.

Medical magazines. Foremost in hospital administration is the fact that we are dealing with a highly organized specialty, the care of the sick. There are numerous well recognized medical publications and I will not attempt to suggest those most beneficial. Each executive should choose the one best fitted for his guidance. The tendency of most of us is to treat medical literature slightly and to devote our time to numerous other problems, but we should at no time lose sight of the high ideals with which we are associated and should steadily increase our knowledge thereof.

Magazines of hospital administration. The two principal magazines edited in the United States on hospital administration are too well known to require much comment. The progressive executive can ill afford to be without one or the other, or both. There is also a valuable Canadian and a British publication. These could be made more useful if the publishers wrote annually to the subscribers asking in what manner they could best be served during the ensuing year.

Magazines of business administration. There are numerous good publications of business administration. Those I have found most useful are *System*, *Industrial Management*, and *Factory*. All contain timely articles. Many banks issue a weekly or monthly letter, such as the pamphlet issued by the National City Bank of New York, summarizing financial conditions. *The Magazine of Wall Street* is also of considerable value. In Massachusetts no one can maintain financial serenity without constant reference to the *Boston News Bureau*. There are many similar publications in other cities, which require but a few minutes attention daily.

The books dealing strictly with hospitals and their management are few. The two most recent contributions which have come to my attention are "Dispensaries, Their Management and Development," by Michael M. Davis, Jr., and Andrew R. Warner, M.D., and "The American Hospital of the Twentieth Century," by Edward R. Stevens. There are doubtless others.

Finally, a word as to the library of the hospital executive. Each executive must determine his own requirements. It is usually admitted that a library does not represent the reading done by its owner, but enables him to consult competent authority when in doubt. In the September number of *THE MODERN HOSPITAL* are two

articles of unusual interest. One is by S. S. Goldwater, M.D., entitled "Self-Education for Hospital Executives." The other is an editorial stating in brief that the Modern Hospital Publishing Company is about to publish a series of practical handbooks and has secured Dr. S. S. Goldwater as editor-in-chief. Both of these are progressive steps capable of much good. I shall not attempt here to outline a library but merely wish to mention a few books I believe the library should contain. As stated elsewhere, there should be a thorough business course. In addition I would suggest:

"The Organization, Construction and Management of Hospitals," Ochsner & Sturm. (While not recent, this is still very valuable.)
 "The Modern Hospital," Hornsby & Schmidt.
 "Accounts," William M. Cole, A.M.
 "Elements of Accounting," Joseph J. Klein.
 "Cost Accounting for Institutions," William Morse Cole, A.M.
 "Corporation Finance," E. S. Mead, Ph.D.
 "The Executive and His Control of Men," Enoch B. Gown.
 "The Principles of Scientific Management," Frederick Winslow Taylor.
 "Twelve Principles of Efficiency," Harrington Emerson.
 "Personal Efficiency," Harrington Emerson.
 "Production Factors in Cost Accounting and Works Management," A. Hamilton Church.
 "Graphic Methods for Presenting Facts," Willard C. Brinton.
 "Men Who Are Making America," B. C. Forbes.
 "Purchasing," C. S. Rindsfoss.
 "Modern Business Law," Edward W. Spencer.
 "Hospital Accounting and Statistics," William V. S. Thorne.
 "The American Hospital of the Twentieth Century," Edward R. Stevens.
 "Dispensaries, Their Management and Development," Michael M. Davis, Jr., Ph.D., and Andrew R. Warner, M.D.

From the above paper we may draw the following conclusions:

First.—Business administration has made marked progress during the past decade and has lately been conducted under abnormal difficulties.

Second.—Hospital administration falls properly into the group of activities known as service.

Third.—In order to render to patients the service which they may reasonably expect, the hospital executive should (a) develop the medical and surgical organization in accordance with the organization of other recognized institutions and with particular reference to the suggestions of the American College of Surgeons; (b) develop a business organization in accordance with modern ideas of efficiency.

Fourth.—A persistent study of modern business principles should be made.

Fifth.—Other hospitals and industrial organizations should be frequently visited and studied.

Sixth.—Executives should join and take active part in medical, administrative, and civic associations.

Seventh.—Combined local activities are of great value among hospital executives.

Eighth.—Daily reports from and consultations with departmental heads, supplemented by personal inspection of departments, is essential.

Ninth.—A practical knowledge of graphic methods of presentation should be acquired.

Tenth.—Competent counsel should be consulted when necessary.

Eleventh.—The information from statistical bureaus should be available.

Twelfth.—Every effort should be made by the administrative body to stabilize the hospital finances.

Thirteenth.—The systematic reading of publications dealing with medical and administrative problems is essential.

Fourteenth.—A program of self-education should be outlined and an administrative library of recognized authorities acquired.

In conclusion, may I say that I realize the above program necessitates considerable reading, but by a systematic arrangement of hours ample time will be found after regular duties for study and essential recreation.

NURSING AND THE HOSPITAL

Conducted by CAROLYN E. GRAY, R.N.,
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HOSPITAL HELPERS*

By CLARIBEL A. WHEELER, R.N., PRINCIPAL, SCHOOL OF NURSING, MOUNT SINAI HOSPITAL, CLEVELAND, OHIO

IN BRINGING to your attention the subject of hospital helpers, I am presenting by no means a new subject, as women rendering the service now designated by this title have been employed in several of our hospitals for many years. This type of worker has, however, not been definitely recognized, nor has her economic value been fully appreciated. Recently we have heard considerable about the ward attendant, the ward assistant, or the hospital helper. The last name is perhaps the most appropriate, as the duties of this group are not confined to hospital wards, but they are employed in all parts of the hospital.

I was requested to present this subject, not as an authority on hospital helpers—I doubt if there be such at the present time—but because of the fact that in the hospital with which I am connected we have employed such assistants for several years with more or less success. I simply wish to give you some of the results of our experience with them, and trust that this short paper may serve to bring out helpful discussion on the subject.

Helpers Supply Several Acute Hospital Needs

The growing need for the hospital helpers is obvious; the increased number of hospital beds paralleled by the increased demand for nursing service, and the recent dearth in the number of applicants entering schools of nursing, have made it necessary to look to some other class of worker to assist in giving the sick adequate service. It is, perhaps, a good thing that this situation has arisen, in order to bring to the attention of hospital authorities the fact that women who are not highly skilled can do certain things, which never should have been delegated to student nurses, who are in hospitals to study the science of nursing and not to perform tasks of no value to their training. With the shortage of students in many schools, it has become necessary to employ graduate nurses, and the folly of paying these women to dust rooms, arrange flowers, and carry trays is at once recognized.

Various measures have been sought to remedy this situation, one of the most notable being the plan for training and registering attendants, a class of women to care for the sick. Laws governing such a practice have already been passed in New York State. Whether a second class nurse is needed is a debatable question. Many leaders in the nursing profession, as well as physicians, hospital superintendents, and lay people, believe that the untrained

attendant is a step backward, especially as medical science is rapidly advancing and great strides are being taken in the protection of the health of our people. To keep pace with scientific medicine and properly to carry out new health measures which are constantly being enacted by law, we need better educated, better trained nurses than have been needed before in the history of the world. It seems hardly wise or expedient to delegate bedside nursing to those who are not properly fitted by education and training to carry out the technical procedures now considered essential. Other ways, such as the development of a more extensively paid visiting nurse service, and the establishment of an hourly nursing service by private duty nurses, seem more worthy of consideration. Certainly in hospitals the attendant is not the person whom we are seeking; the helper does seem to meet the situation fairly well.

Functions of Hospital Helpers

The distinction between hospital helpers and ward maids is not clear in the minds of some people. When we look at the type of ward maids found in the majority of our hospitals today the difference is easily detected. Surely this woman who scrubs floors and cleans hoppers cannot come into any very intimate contact with sick people; she is usually Italian, Polish or colored, and she often speaks very little English. In most of our hospitals the ward maid is under the jurisdiction of the housekeeper instead of the nursing department. The hospital helper, on the other hand, must necessarily be a woman of better type; she must speak English and present a good personal appearance. She is an adjunct to the nursing service which is a distinct advantage, as her tasks are much more intimately connected with nursing than are those of the ward maid.

The work which can be delegated to hospital helpers is not to be confused in any way with nursing; the tasks performed by them, it is true, have heretofore been done by nurses, but they were not nursing procedures. They are the things which have warped and narrowed the training of the student nurse by their ceaseless repetition, and have prevented her from receiving more important practices, as well as having been instrumental in prolonging her hours of duty. It is true that student nurses should learn the science of cleaning paint, marble and brass; that they should be taught how to serve trays, arrange and care for flowers and make beds; it is necessary, however, that they repeat these things throughout three years.

Hospital helpers may be taught in the wards to dust

*Read before the Twenty-Second Annual Convention of the American Hospital Association, Montreal, Canada, October 4-8, 1920.

beds, stands, and window sills, to clean utility rooms, to make empty beds, to disinfect beds, to put in order private rooms after patients have gone home, to arrange flowers, to fold and put away linen, to assist the nurses in serving and carrying trays, to run errands for the ward. They are useful in the nursery to assist in many ways in the care of the babies. In the operating room they can be taught to clean instruments, to wash and mend gloves, to sew on buttons and tapes, to make and put up supplies for sterilization, and a hundred such details too numerous to mention. All surgical dressings for the hospital can be made by them, for it is a useless waste of time to require students to pull washed gauze and to make up dressings. The admitting room has a place for the helper, also, as here she can be taught to assist in the admission of new patients, giving baths, listing and putting away clothing, etc. She may become a useful assistant in the out-patient department, where it is often difficult to secure an adequate corps of assistants, and where nurses often spend hours on useless detail. In fact, there seems no place in the hospital where nurses are employed that these helpers cannot be used to advantage.

Conceded that the helper is an essential individual in the present day hospital, the question is, Where are we going to find her? How are we going to retain her when once captured? From personal experience the helper may be found in three rather distinct classes. The most common and the most dependable are young women from eighteen to thirty years of age, who have a real desire to be associated with sick people; but who do not possess the necessary educational qualifications for entering training. If this group can be sufficiently impressed with the fact that they are rendering a much needed service and are really instruments in caring for the sick, they may be satisfied to remain for a considerable period of time in the hospital. The second class is composed of high school girls desirous of earning something during the summer vacation. Many in this way become interested in nursing and decide to take the nursing course. We have had several who have in this way become interested in our school. The last group are women who perhaps do not have to work for a living; but have taken the Red Cross courses in hygiene and home nursing, and are willing to come into the hospital in time of an emergency or epidemic or even for the summer to relieve for vacations. Several such women have served in Cleveland hospitals during the past summer.

In most hospitals, as in our own, I believe, the helpers are taught by the head nurses. It would seem feasible and advantageous to instruct them in the principles of hygiene, the art of cleaning and folding linen, the care of flowers, etc., and to demonstrate to them the procedures required of them. These classes could be given by the instructor in nursing methods. Without doubt this instruction would give them an added interest in their work and would make them feel that it was more worth while. Another advantage would be their uniform training.

A distinct uniform for the helpers is, of course, necessary, but it is a question whether they should be supplied by the hospital or provided by the helper. Most hospitals supply uniforms to maids and porters and could furnish them equally well to the helpers. A plain wash dress with white collar and apron seems most desirable. Rubber heels on shoes should be required.

The housing problem seems to be a difficult one for this group, as they cannot be housed in the nurses' residence and they do not fit in well in the servants' quarters. In most places they live outside the hospital. One or two

meals are provided and the uniforms are laundered by the hospital. There seems to arise a question as to where they shall have their meals served. In some places they eat in the nurses' dining room, in others in the employees' dining room. In our own hospital they are served in the employees' dining room, but not at the same time as the other employees.

Salaries for this class of worker seem to vary; but from what I can learn from hospitals employing them, they are paid anywhere from \$35 to \$60 per month for eight hour duty. It would seem unreasonable to ask any woman to do such work for less than \$55 or \$60 per month, and institutions paying less than this will have trouble in securing them.

Without question, there are many disadvantages in employing hospital helpers. In the first place, they are hard to find, which is, of course, equally true of finding orderlies, waitresses, and ward maids. Advertising in the daily papers, applying to agencies and securing them through the hospital social service department seem the best methods. As has been mentioned before, housing them presents a serious problem, as does the serving of their meals. It is also asserted that some of them go out and pose as nurses, charging nurses' fees. This is nothing new, however; hundreds of untrained women are doing it constantly, and will continue to do it until proper laws have been made for the protection of the sick public. It must be remembered that the helper does no actual nursing and should be made to understand clearly her relation to the nursing department.

It would seem that the advantages of employing helpers far outweighs the disadvantages. In hospitals where graduate nurses are employed it is certainly cheaper to employ helpers to perform household tasks than to require nurses to do them. In others, where the burden of the nursing service falls upon the student body, the helper is a factor in relieving the pupils of much unnecessary routine, and in shortening their hours of duty. Young women eligible to schools of nursing may in this way become interested in later taking the regular nursing course.

The helper seems to have become an essential part of the hospital personnel; she is a decided asset to the nursing department, as she relieves the skilled worker of unnecessary details; she is a valuable factor from an economic standpoint. Consequently, greater consideration is shown her, her life will be made pleasanter, and the service she renders greater.

SHORTER HOURS FOR NURSES A DIFFICULT PROBLEM

"To institute legislation for restricting nurses' hours is to lay hands on a very delicate piece of mechanism," thinks *The Hospital*, an English publication. "It seems to us impossible to introduce a hard and fast rule of forty-eight hours a week to apply to every kind of nurse under every kind of condition. Certainly for private nurses and those in institutions the fortnight seems the better period of limitation. Is there not room for some discrimination of work? Eight hours spent in the operating theater, in the casualty department, in massage, is a widely different day's work from eight hours spent in varied duties of a domestic type. It may be necessary to arrange for longer spells of work, with a complete holiday afterwards, in some departments of nursing. There are puzzling matters to be thought out, which agree better with a department of health than with a department of labor."

WHAT SHOES FOR NURSES?

By E. H. BRADFORD, M.D., BOSTON, MASS.

ALTHOUGH the protection of nurses' feet is as important for a hospital superintendent as the guarding of the feet of soldiers for the colonel of a marching regiment, yet less has been accomplished in providing suitable shoes for nurses than for soldiers. This is partly due to the fact that the demand for proper shoes is less urgent in the case of nurses than in that of soldiers. Little regard need be paid to the demands of style in soldiers' shoes, while since an acceptable appearance is important in a nurse's calling, ill-fitting, clumsy footwear is undesirable, and this fact must be carefully considered.

In shoes ordinarily furnished to women, the foot is brought into a pronated position, which puts an additional strain on the inner ligaments and promotes the development of flat foot. This is due to the fact that normally the bones of the foot, when placed in a strong weight-



X-ray of a foot in a shoe—showing the crowding down of the first metatarsal by a shoe shaped on a too flattened last.

bearing position, are so arranged that the inner side is much higher than the outer. If the inner side of the front of the foot is brought down nearly to the plane of the outer side, this is accomplished by twisting the foot slightly at the midtarsal joint, causing the position of knock ankle, plano valgus or flat foot, the disadvantages of which are not only in the danger of the development of a fixed deformity, but also in weakening the weight-bearing capacity of the foot. Another disadvantage from faulty shoes, especially if the heel is high, is that a weakening deformity known as pes cavus or humped foot, may be developed. This is accompanied at times by a distortion characterized by the drawing up of the toes, which, in an exaggerated form is called claw foot.

Common Sense and Fashion Conflict

The shoe which is not shaped according to the natural shape of the foot, hampers its normal movements and cripples its action. On the other hand, a shoe shaped so as to give perfectly free action to the muscles and articulation of the foot may not be acceptable to the shoe purchaser. A compromise must be reached which will be suited to the muscular needs of the purchaser, and also acceptable in the market.

It will be seen that shoes of the high heel period of one hundred and fifty years ago differed in shape from those which are now the fashion, and in many respects were less injurious to the foot. The front of the fashionable shoe of that period was covered by a buckle or a bow and was

made fuller over the waist of the shoe, than at the present time. Apparently the desire now is to give to the foot the appearance of a high instep. This is done by flattening the last at the level of the ball of the foot. As the leather is shaped over a last of this fashion, and stitched firmly down to the sole, with the addition of a non-stretching seam, the foot is obliged to conform quite closely to the lines of the last. The foot placed in such a shoe is held in a more or less unyielding box. As the heel is raised the foot slides forward, this being checked by the resistance of the cross seam, or of the leather stretched tight over a too much flattened last.

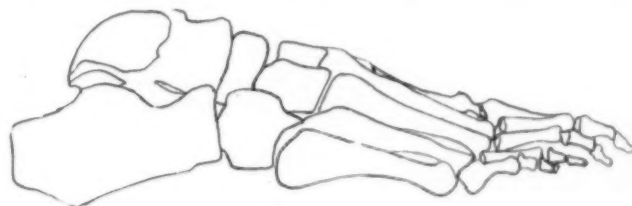
Injurious Effects of Flat Toed Shoes

Widening the sole of the shoe does not remedy this, or give the necessary room for an up and down play of the toes, for the leather is stitched on to a stiff sole. The injurious effect from shoes made from a last of this sort is twofold, first, at every step pressure is placed upon the first metatarsal which brings an abnormal strain on several ligaments, especially upon that of the first metatarsal. This may give rise to a peculiar deformity, characterized by the projection of the ankle-end of the first metatarsal, which may appear to the patient to be due to a growth in the bone. It is really, however, the result of the flexing of the bone similar to that seen in the knuckle of the hand if the finger is bent downward. The second injurious effect is that flexing of the toes is checked, since they are pressed down flat upon the shoe sole, by the pressure of the upper part of the shoe shaped on a flat toed last.

The object of flattening the top of the last is to obviate the development of unsightly wrinkles in the upper of the boot, after they have been worn. If the requisite is injurious to the foot, it should be disregarded, but the difficulty can be met, by opening the shoes well down toward the toes, as is done in skating and baseball shoes. With proper designing on the part of the manufacturer, a neat looking shoe could be made which would not injure the nurse's foot.

Defective Shoes Increase Fatigue

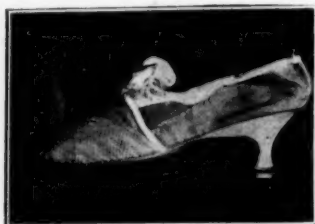
The work of a nurse does not require long marching, it does require long hours of standing. For this use the muscles of the soles of the feet should be strong, and the



Skeleton of a foot seen from the outside—showing that the bones of the front of the foot are higher on the inner side than on the outer side.

flexibility in the mid-ankle joint should be normal, so that the weight of the body would come on the foot in a proper weight-bearing position. As a nurse may be obliged to lift with the body leaning forward, some flexibility of the toes, to give toe pressure as the body leans forward, is necessary. If the nurse's feet are not in a normally flex-

ible condition so as to give the proper suppleness or muscular strength, the nurse needs treatment, if, however, the foot is relatively normal a shoe should be furnished which will not hamper her in her work.



Last century fashionable slipper—showing fullness over the front of the foot.

Defective shoes cannot always be recognized at the first fitting. They may at first seem comfortable, for the foot has enough adaptability to adjust itself to new strains, but they might in wearing give an abnormal strain for the adaptation itself is a tax on the foot which lessens working power and invariably occasions

undue fatigue or nervous strain.

Thus a nurse's shoe should not be as clumsily loose or as heavy as that of a soldier, but there should be sufficient pliability for a moderate amount of toe play, and such flexibility of the upper as to allow proper mid-ankle side play. The shoe should be arranged so as to check the slipping of the foot forward well above the line of the middle

of foot, and not so as to press the metatarsal downward.

The problem for the shoe dealer is to furnish a shoe sufficiently full in front without such a sacrifice of style as to prevent saleability. That the heel should not be high goes without saying, as also that the shoe should not be of the pointed toe variety. The shoe should not be designed to support the arch, for flat or weak footed nurses need not shoes but treatment.

From the manufacturers' point of view it may be said that, in making up shoes for the market, there should be a sufficient demand for the sale of a special nurses' style as to justify the necessary financial outlay. If, however, hospital superintendents, and nurses' associations agree upon the best possible shape and style for a suitable shoe, there is no doubt that the demand would be met readily by shoe dealers and manufacturers. Special shoes are now made for dancers, skaters, football and baseball players; do not nurses deserve equal consideration?



Modern shoes, shaped on lasts which are flattened too much over the front of the foot.

NURSING IN THE MOVIES

By EDWIN P. HAWORTH, M.D., SUPERINTENDENT, WILCREST HOSPITAL AND THE WILLOWS MATERNITY SANITARIUM, KANSAS CITY, MISSOURI

WHY do movies have such unreal stuff when they attempt to present a drama of nursing or hospital life? Is it that photo-dramatists think life is as they picture it?

I just came from the movies, seeing Mary Miles Minter in a film entitled, "Nurse Marjorie." Miss Minter acted very attractively the part she had to play, but she was not a nurse. No nurse would do the things she did. No hospital of standing would tolerate the actions of such a nurse. It is not normal nursing or hospital life.

The general shortage of nurses has been so acute that all forms of propaganda work have been suggested to interest young women in taking training. Encouragement has been offered for several years in getting more novels, more short stories, more special articles, more movies and plays to present nursing and hospital training life. And perhaps the authors of these flimsy sketches really believe they are helping to interest young women in nursing as a profession. Be that as it may, they are missing the goal.

There is plenty of romance in hospital life to make wonderful pictures. Tragedy and near-tragedy stalk the corridors daily. Comedy is bravely tiptoeing the surgical ward. But silly sentimentalism with a shabby love setting is rarely tolerated in the roles of the nurse, the interne, and the doctor. Remember that doctors of the present day are the best educated class of men outside the high school and college school rooms in the world. And the nurse is a professional woman.

The young woman is not in the hospital to play hands and enact silly love scenes. Through the agency of foolish stage, film, and literary art, hospitals have more severe attacks of love epidemics than they used to. And it is harder to cure the malady than it was formerly. More of the wrong type of aspirants make application for hospital work, and less proportionately of the old school type of nurses are called to enter training. This latter type is disgusted by the hospital life as depicted in the movies; if that is the nursing life of the day, she will have none of it.

Nursing life has always been looked upon by the laity as a Florence Nightingale or Clara Barton sort of life—something ideal, with a purpose. It is the model profession for the humanitarian, and may be backed up with a sense of religious responsibility or purely a personal and altruistic feeling. It is a non-worldly profession, and for the non-Catholic world is the substitute for services of the Sister of Charity. It is an opportunity to give one's own life in service to his fellowmen. As such, nursing has had its own distinct appeal.

Now with the film presenting the nurse and her profession visually in a new light, the nursing standards of earlier years are not being preserved in the eyes of the world. Unfortunately this is sending applicants to training schools who start with the wrong ideals. True, the life depicted is not the one they find. But there is much wastage in working out the false ideals and developing the right ones. In the meantime the girl with the proper ideals, the one already right-minded, is not coming for training in the proportion that she once did.

Perhaps I am wrong in thinking the movies are treating the nursing profession worse than other kinds of life. Perhaps it is merely the unusual and farfetched method of handling all lines of life and thought. If so, so much the worse for the movies. If they are as abnormal and unrealistic as that, then they are a more demoralizing influence for civilization than I had thought.

But the life of the nurse, pupil and graduate is subject to worth-while dramatization if presented faithfully. There are details in her life that appeal to the imagination and show her to be a character worth spending an hour with in the movies.

Why can't we see the real nurse on the screen, instead of the movie-actress, play-nurse! Both the personality and the dramatic motive would then be improved, much to the advantage of our ideals, and the future of the nursing profession.

DIETETICS AND INSTITUTIONAL FOOD SERVICE

Conducted by LULU GRAVES,
Home Economics Bldg., Cornell University, Ithaca, N. Y.

WHAT ARE THE ADVANTAGES OF THE CAFETERIA SYSTEM?

By EMMA R. BAKER, TEACHERS' COLLEGE, NEW YORK CITY

THE general impression that a cafeteria is a cheap place in which to eat is misleading. Good food, wherever and however served, is expensive; but the same quality, self-served, can be sold at less cost where music, flowers, decorations, linen, menu-cards, etc., are eliminated. In institutions where we must earn as we spend, the quality of the food is our first consideration. The same economics in buying, receiving, storing, distribution, preparing, and cooking foodstuffs are applicable to the cafeteria as to all other dining rooms.

Whereas we used to think the cafeteria a place where the *à la carte* menu alone was in vogue, necessity, or the labor problem, has forced us, in some instances, to install the self-service form in place of the *table d'hôte* meal.

Seven years ago, when faced with this particular problem, we were unable to find one single example of this kind in New York City. We were obliged to work out our own salvation. Today many institutions have found the self-served breakfast and luncheon economical. For obvious reasons, the evening meal is more satisfactory when service can be rendered.

As a means of feeding employees, the cafeteria *à la carte* has distinct advantages, especially where the workers are of different nationalities, accustomed to different kinds of foods. The opportunity given for a choice is a great factor in keeping them contented.

Having decided upon the cafeteria form of service, our first thought, after the location has been settled, is the division of the allotted floor space, approximately; one-third space for food preparation in kitchens and store-rooms; one-third space for service, (this space railed off): counter, steam-table, and urns; one-third space for the seating of our patrons.

The best shape for our dining room is a square, nine to twelve square feet being necessary for each individual whom you expect to accommodate, nine being the low, twelve the high limit. With a floor space or seating capacity of 2,500 feet, we can seat approximately 250 people at once.

Our service counter will easily provide for 250 to 300 people. Above this number, a second service counter is essential; or, two steam-tables, side by side, may fill the need, where economy of space must be considered, it being possible to increase facilities for the serving of salads and desserts by building perpendicularly.

Four to ten people a minute pass a given point in our

lunchrooms, depending upon the length of the menu, and the type of the patron. We find that children pass along more quickly than adults. An average of twenty minutes is spent at the table by the student or worker whose time is limited. This means that the seats can be filled three times during an hour. The greater the number of times that equipment and labor can be utilized within a given time, the better from the economic standpoint, for long waits between relays are expensive.

In the problem of making menus for a certain institution there are several points for consideration. The first point is the type of patron, the age, sex, activities, class, nationality, financial ability or custom. If all are students of the same age, activities, and class, a *table d'hôte* meal is more easily and satisfactorily served for a certain specified sum, which can easily be regulated by the sale of tickets. Regular numbers of patrons should be guaranteed, however, to make this economically safe.

In two instances we furnish a *table d'hôte* luncheon, at a specified sum, to children whose parents wish them to have a balanced ration. But where every age, nationality, and both sexes, are numbered among our patrons, opportunities for a choice are more popular. We have one school where every grade from kindergarten to college professor is represented. Here, a very definite policy is pursued to meet the different tastes, ages, and pocket-books. At night, with no children to consider, the limited bill of fare is better liked by the majority. Here, at luncheon, our bill of fare consists of:

One soup.	Three sandwiches—heavy, relish, sweet.
One roast (meat or fish).	Desserts—pudding, custard, ice cream, cake, fruit (fresh, dried, canned).
One made-over.	Bread and rolls.
One meat substitute.	Beverages—milk, cocoa, tea, coffee.
Two vegetables besides potato, rice, macaroni.	
Three salads—heavy, relish, sweet.	

The evening meal consists of:

Soup, one meat roast and a fish, two vegetables, a simple salad, ice cream, cake, pudding, pie, fruit, tea, coffee, milk.

Second, after considering the type of menu, *table d'hôte* or *à la carte*, we devote our attention to its make-up in relation to: the cost, nutritive value, (meal, day, and week,) the season, market conditions, and popular taste or custom, (Friday, Lent, Jewish holidays).

Safety lies in variety, and whether that variety should be furnished in one meal, one day, or one week, depends upon whether or not patrons are regular or transient, all of the same age, sex, or activities.

Whatever the type of menu, there is no excuse or reason for serving the same things on two consecutive Mondays, Tuesdays, etc. If one must use the same set of menus a second time, arrange for eight or nine days, so that the same one will not be repeated on the same day of the week. In making menus, we must try always to have something fresh and different in every meal, not all the good things in one, and the prosy things in another. Vary the items themselves, and vary the form in which they are served. For instance, in made-over meats there are: cutlets, croquettes, loaves, cakes, hashes, creamed or minced meats, salads, meat pies, stews, or jellied meats.

Cereals, vegetables, and desserts offer many opportunities for variety. Vary the name for practically the same thing; for example: tomato soup, cream of tomato soup, or tomato purée.

Naturally insipid and flavorless foodstuffs need piquant sauces; colorless and unattractive ones, a bit of color. A cherry, a bit of jelly, or a little whipped cream will make a nourishing but unattractive dessert or salad salable. Many times, the cheaper foods are in themselves less attractive—cod, blanc mange, etc. Sliced or grated egg, pimento, or paprika will dress up an otherwise unpopular fish or vegetable.

Thirdly, we must consider counter display. Since it takes longer to dispense the hot foods at steam-tables and urns, congestion is apt to occur at these points; therefore, I see no reason for keeping the customary sequence of courses. Since the entire meal is on the tray at one time, the natural order—soup, roast, salad, and dessert—need not be followed. In order that hot foods may remain hot, why not place steam-table and urn at the end of the counter?

For psychological reasons, let us make our counter display as attractive as possible. For example, in salads and desserts, intersperse the colorless with the colorful, keeping in mind the practical necessity of placing conspicuously and attractively those dishes which should be sold first. This is good salesmanship.

The fourth point is the size of portions. It may be good policy to serve expensive foods in smaller portions, while those of the less expensive ones are made more generous. It is our experience that many prefer smaller portions, which insures a greater variety on their tray. As the variety on the menu increases, the portions may decrease in size, and vice versa.

In the fifth place, there is the size of dishes and utensils. Use dishes to fit the size of the portion. If the dish is too large, small portions look stingy, and servers may be tempted to give more than can be afforded, and food may be wasted. When too small, too little food may be given or dishes may be over-full. This is true of individual cream and syrup pitchers as well as dishes for custards, etc.

Standardize the number of orders to the pan of cake, pie, or pudding; the number of orders to a roast, or fish; the number of cups to a gallon; and the size of fruit, apples, oranges, grapefruit, or prunes, to be served. Standardize the size of ladles and spoons to a serving, to prevent a second dipping.

"The little leaks sink the ship." It is only by accurate work in measurements that we can know where we stand in regard to food preparation and food costs.

In conclusion, some of the advantages of cafeteria service to the patron are: cheaper service, quicker service, greater variety, the fact that he may actually see the food and take nothing which he might otherwise scorn, and if he uses good judgment, the absence of waste. It also helps children at an early age to learn food costs,

food values, self-dependence, democracy, and self-control.

The distinct advantage, to the management, of a cafeteria system, is the elimination of approximately 25 per cent of the labor. There being no "tipping," the cost of service is greater than in the average tearoom or restaurant; but our self-respect more than makes up for this item. There is little or no laundry; there are greater possibilities in the use of left-overs; there is a minimum of waste. It is possible to make use of smaller quantities in a short market; to change items at short notice; to fit all pocketbooks, fat and otherwise; and to meet all demands—those of faddists, vegetarians, meat eaters, dyspeptics, and the "many men of many minds," who are always with us.

A favorite quotation of Miss McKenney of the University of Chicago is, "When I go fishing for trout, I feed them angleworms, not because I like angleworms myself, but because the trout like them."

NEWS ITEMS

Miss Carrie Luce is assistant dietitian at Lakeside Hospital, Cleveland, with Miss Bessie Brinton.

Miss Rowena Jackson, formerly dietitian at Hahnemann Hospital, Rochester, N. Y., is taking post-graduate work at Mechanics Institute, Rochester.

Miss Esther Schneider of the University of Illinois has completed student dietitian training at Barnes Hospital, St. Louis, Mo., and has been appointed assistant dietitian in that hospital.

Miss Charlotte Addison, head dietitian at Post-Graduate Hospital, New York City, recently submitted to a very serious operation and has gone to her home in Canada to remain until she has regained normal strength.

Miss Isabel Stewart has recently gone to the Montefiore Home, to help them solve the problems in their dietary department. Montefiore Home is a Jewish institution for chronic invalids, and offers an opportunity for interesting work. Miss Stewart was formerly at Cook County Hospital, Chicago.

Miss Helen Peterson has accepted the position of dietitian at the Lutheran Hospital, La Crosse, Wis. Miss Peterson is a graduate in home economics from the South Dakota State College, and has since completed a four months' training course as student dietitian at St. Barnabas Hospital, Minneapolis, Minn.

Miss Naomi Jones has accepted the appointment of assistant dietitian at Michael Reese Hospital, Chicago. Miss Jones is a graduate of the home economics department at the New York State College of Agriculture, and also the course of training for student dietitians given at Cooper Hospital, Camden, N. J.

Miss Alice Smith is dietitian at the Children's Homeopathic Hospital of Philadelphia. Miss Smith is a graduate of the home economics department of the New York State College of Agriculture. She took student dietitian training at Cottage State Hospital, Mercer, Pa., between her junior and senior years, after which she filled the position of dietitian at that hospital for a few months, before completing her college work.

Miss Lilian Boggs has gone to Beirut, Syria, to engage in cafeteria work under the auspices of the Young Women's Christian Association. These cafeterias are being established chiefly for the women who have gone into business life from the seclusion of harems. Before going on to Beirut, Miss Boggs will spend some time in Constantinople, in order to familiarize herself with markets, and conditions relative to food service in that country.

THE PLACE OF DIETETICS IN PUBLIC INSTITUTIONS

BY KATHERINE BEMENT DAVIS, M.D., GENERAL SECRETARY, BUREAU OF SOCIAL HYGIENE,
NEW YORK CITY.

THE group of institutions with which I am most familiar is a special group, and one in which there is still very much to be done. I refer to those institutions on the cottage plan, by whatever name they are known, which care for delinquent women and girls.

This group of institutions brings in an entirely different set of factors from those present in the big congregate type of institutions, like general hospitals, state hospitals for the insane, institutions for the feeble-minded, etc. Any one who has given a thought to the subject cannot fail to see the fundamental importance of dietetics in reformatory institutions. In such sayings as, "The stomach is the way to the heart of the average man," and "An army travels on its stomach," we see general recognition of the effect of diet on morale. No institution will be highly successful which does not properly feed its inmates, whether they are there for sickness, for crime, or for dependency; and recognizing this one by one, practically all of our best hospitals and other large public institutions have come to employ the services of a trained dietitian, either under that name, or under one that implies the function. The services of a trained dietitian have been much more slowly utilized in the penal institutions. Such an officer, for example, was first placed on the staff of the department of correction during the Mitchel administration, and is continued under the title of departmental steward, his functions being to inspect and supervise all food received in the institution, plan menus, and consult with the chefs of the institution as to the preparation of the food and its service.

In the group of institutions in which I am especially interested, we need to consider dietetics, and hence the dietitian, from three points of view. First, that of health; second, that of discipline; third, that of education.

It is unnecessary to speak here of dietetics in relation to health. To anyone who is familiar with institutions for delinquent women it is unnecessary to point out the very high percentage of those who are physically below par at the time of their commitment. Whether this is the result of the life they have led, of physical defects such as poor eyesight, bad tonsils, adenoids, or other disabilities which may be remedied, diet will play an important part in the regaining of such physical health, as will enable them to be receptive of the various influences which make for regeneration. From the point of view of health, it is obvious that there will be groups needing a specialized diet, entirely aside from the hospital cases.

Disciplinary difficulties in this class of institution occur frequently, and there is no cause that leads to trouble more certainly, quickly, and directly, than dissatisfaction with the food served. A very high percentage of the young women who go to institutions have become accustomed, in the course of an irregular life, to eat irregularly and on the whim of the moment. They have acquired appetites for highly seasoned food, and food which appeals to the taste, rather than that which is nutritious. The ordinary bill of fare for the penal institution makes absolutely no appeal to a jaded taste, on account of its plainness, its lack of variety, and its routine character. It would hardly be too much to say that a direct relationship could be mathematically established, between dietary defects and certain kinds of disorders.

Years ago when we began to build the cottage type of institution, domestic service was practically the only outlet for the labor of these girls and women when they were released from the institution on parole, or were finally discharged. One of the great arguments for institutions of the cottage type for women and girls was that the smaller kitchen and dining room, while providing for a larger group than is found in the ordinary family, afforded a means of training much greater than institutions of the congregate type. In addition to the training afforded as means of earning a livelihood, there is the further fact that a very large percentage of these women marry, and anything which will raise the standards of ordinary family life in the lower social strata is advantageous to society as a whole. This latter consideration still remains, although as to the former, with the passing years there is a growing unwillingness on the part of the young women released from these institutions to accept domestic service, and a growing feeling on the part of institutional officers and others, that this is a point of view which must be dealt with; accordingly, the emphasis laid today on training for domestic service is less marked.

Whether we consider the problem from the point of view of health and education, or merely from the point of view of discipline, the service of a trained person to supervise the food problem is obviously a necessity. Certain difficulties, however, present themselves to the managers of such an institution. The number of inmates in each of these institutions throughout the country is rarely over 600, and it is frequently impossible to pay the salary of a properly trained woman to serve as a dietitian alone. Accordingly, we find such combinations as an assistant superintendent who serves as dietitian; a cooking teacher, who in addition to doing the actual teaching in the classroom, superintends and makes out the menus, and in some instances meets and instructs the housekeepers in the preparation of the same; or a head of one of the cottages who is obliged to fill in her spare time with the work and supervision of the menus. In any case in a cottage institution the closest cooperation is necessary between the dietitian, whoever she may be, and the cottage officers, if good results are to be obtained. The cottage officers are apt to be women, who, left alone in middle life, have no trade or profession, and who apply the knowledge of housekeeping obtained in their own homes to institutional cottages. There is a growing difficulty, however, in securing enough of them who can perform their duties satisfactorily, for more is necessary than mere knowledge of running a private house.

It has occurred to me to wonder exactly to what extent the increased cost of living and the increasing difficulties in securing adequate staffs might be underlying causes of restlessness in some of our institutions. I chose the institution which I knew best, that is, the State Reformatory for Women, at Bedford Hills, and made a comparison of certain items in its budget covering a ten-year period. The last available budget was that for 1919.

1919	Total maintenance appropriation.....	\$177,391.02
1909	Total maintenance appropriation.....	66,887.51
Total increase in maintenance fund.....		\$110,503.51
Per cent increase.....		165.2

During this period the movement of population was as follows:

1919	Average daily population.....	348.9
1909	Average daily population.....	306.9
	Increase in population.....	42
	Per cent increase.....	13.7

A comparison of the daily per capita shows:

1919	Average daily per capita for maintenance.....	\$1.3928
1909	Average daily per capita for maintenance.....	.599
	Increase in average daily per capita.....	.7938
	Per cent increase.....	132.5

The two specific items in which we are particularly interested are those for food and for salaries. These were as follows:

1919	Daily per capita for food supplies (19.6% of total per capita).....	\$2.73835
1909	Daily per capita for food supplies (24.55% of total per capita).....	.147
	Increase in daily per capita for food.....	.125835
	Percentage increase.....	85.5
1919	Daily per capita for salaries (39.3% of total).....	\$5.47427
1909	Daily per capita for salaries (47.4% of total).....	.284
	Increase per capita for salaries.....	\$5.26427
	Percentage increase.....	92.7

But this does not tell the whole story. We must compare the number drawing salaries at the two dates.

1919	On pay roll.....	107 persons
1909	On pay roll (one person half-time).....	56.5 persons
	Increase in number.....	50.5
	Percentage increase.....	88.5
1919	Total salary budget.....	\$69,719.28
1909	Total salary budget.....	\$1,699.14
	Total increase.....	\$38,020.14
	Percentage increase.....	119.9
1919	Average salary (107 individuals).....	\$651.58
1909	Average salary (56.5 individuals).....	\$561.04
	Average increase.....	90.54
	Percentage increase.....	16.11

It must be borne in mind, however, that these figures, also, do not tell the whole truth. A very large per cent of these persons receive maintenance in addition to their salary, and the increased cost of this important part of living has thus been borne by the state. Thus these officers are not personally affected by increase in food prices. Aside from food, the largest item in personal expenditure is that for clothing. Research Report No. 28 entitled, "Changes in the Cost of Living, July 1914, to March 1920," published by the United States Bureau of Labor Statistics, presents index numbers based on average retail prices in 1913. The report states that clothing increases form the largest budgetary increase in this period, and advanced 177 per cent between July 1917 and March 1920. Practically a week's salary is required by the lower paid members of the staff to buy a pair of shoes. What wonder that there is difficulty in obtaining and keeping cottage matrons!

The index numbers for the advance in food prices show a more reasonable provision by the state for meeting this important need. The percentage increase for food at Bedford between 1909 and 1919 was 85 per cent, while the index numbers based on forty-three standard articles show an increase in retail prices of only 84 per cent between 1913 and June 1919. Institutional purchases are wholesale so these figures are not to be taken as exact. They only indicate a tendency.

It would seem from all this that the principal part of the task of a dietitian in such a cottage institution at the present moment would not be so much the increased difficulty in securing the food material necessary to furnish a balanced dietary, but in the difficulty of finding suitable persons to help carry such dietaries into effect. I am strongly of the opinion that no other officer in a state institution is of greater importance than the dietitian, and that increased efforts must be brought to bear to persuade our legislatures to budgetary increases to secure such services for the institution, and an adequate salary for those whose services are equally necessary to make the work of the dietitian a success. Such an effort, if

successful, would go far toward solving disciplinary difficulties in some of our institutions.

NEWS NOTES

The following news items were written several months ago but through an oversight they were not published. They may no longer be new to some of you, but to others they may, hence we publish them, though tardily.

Miss Elizabeth Ross Owen is now at The New Charlotte Sanatorium, Charlotte, N. C. For some time we have associated Miss Owen with Highsmith Hospital, Fayetteville, N. C.

Miss Beatrice Roach, formerly dietitian at the Ithaca City Hospital, Ithaca, N. Y., has recently gone to the Cancer and Skin Hospital of New York City. Miss Roach is to devote her time especially to children's cases.

Miss Evaline Kerr resigned at Letterman General Hospital, San Francisco, to return to Alameda County Hospital, San Leandro, where she was located before going into service. Miss Belle Haggerty has been dietitian at Alameda County Hospital during this period.

Miss Lulu Winans has been appointed head dietitian at St. Luke's Hospital, Chicago. There has been a readjustment of the dietary department at St. Luke's, and Miss Winans has been given supervision over the work previously done by two dietitians acting independently.

The following dietitians have a new address but we know no details of their new work: Miss Adeline Standemayer, National Soldiers' Home, Los Angeles County, Calif.; Miss Pauline Lamson, Fayette Memorial Hospital, Connersville, Ind.; Miss Ruth Dodge, United States Public Health Service Hospital, Prescott, Ariz.; Miss Frances Malem, Stanley Hospital, Rochester, Minn.

The Chicago Dietetics Association held its November meeting in the Hospital Library and Service Bureau rooms in the Modern Hospital Building on November 26. Reports of the meeting of the American Dietetic Association were given by: Miss Mabel Little of Marshall Field & Co, Miss Anna Boller of the Infant Welfare, and Miss Ruth Cornmar of the United States Public Health Hospital.

The Chicago Dietetic Association met Friday, September 24, at the Michael Reese Hospital. The Association had the privilege of having Dr. Ernest Lackner present to them "Schick's Translation of the Von Pirquet Method of Calculating Food Values." When a thorough knowledge of using this method is acquired, it proves much more simple than our present caloric method of calculating values. After the lecture the members were invited to the playroom of the Sarah Morris Hospital, where readings by Mrs. F. W. Fischer, and refreshments were much enjoyed.

START CAMPAIGN FOR CHILD WELFARE

At the October meeting of the American Child Hygiene Society, in St. Louis, an intensive campaign for the preservation of child life was launched. It was shown by statistics that the number of infant deaths in 1919 was 12,000 fewer than in 1910. An educational campaign will be started to further reduce this rate. An exhibition of child welfare work was held in connection with the meeting. Such topics as prenatal care, maternal care, infant care, pre-school age, school age, and adolescence, were discussed.

Many people who are complaining of not getting a square deal would complain a good deal more if they got it.

HOSPITAL EQUIPMENT AND OPERATION

With Special Reference to Laundry, Kitchen and
Housekeeping Problems

Conducted by FRANK E. CHAPMAN, Superintendent
Mt. Sinai Hospital, Cleveland, Ohio

THE MARKET'S TREND

BY C. B. EVANS, THE ECONOMIST, CHICAGO, ILLINOIS

THE tone of business in the United States has improved materially since the turn of the year. This change is due rather to a sense that liquidation has already gone far, and not to any new buying impulse in the commodity markets. It arises also, in part, from a sense that the country has shown great strength in view of the widespread decline in prices, and the exposure of all persons engaged in business to disaster. Failures have been many, and there will be possibly more this year than in any former twelve months of our history, but that we can stand so much, and yet not collapse, gives confidence to leading business men, many of whom declare that the worst has been seen.

The evidence now points to a steadiness in affairs, in contrast with the uncertainties of the second half of 1920, and to a temporary compromise between complete liquidation, with a return to the normal of pre-war years, and the inflation which characterized the period of the war plus the first few months of 1920. Labor will still insist on a larger participation in profits than formerly, and there is every probability of high percentages on capital for years to come. The result naturally will be prices somewhere between those of early 1914 and those of the high levels last year.

The extraordinary need of repair throughout the world may reasonably be expected to give workers enough to do, but the production of capital to work with will not always keep up with the need; hence one should not base great expectation on the favorable turn affairs have taken. We shall have further breakdowns without doubt. They need not occur from over-production, more likely from the insufficiency of liquid capital.

We must keep in mind the sore spots of the world; indeed, we must remember that the whole world is sore. One may note the points of most acute suffering—Japan, Mexico, Cuba—and consider them symptomatic of the whole condition. In a period of many years London had no important failures, but two banks in that city—not of the largest caliber by any means—have recently failed. Amsterdam has shown the white feather, and so have the financial and industrial institutions of Belgium. South America is not a serious menace, though there have been many repudiations of contracts, and other evidences of inability or unwillingness to meet obligations.

The farmers of the United States are showing up a little better than heretofore. They have concluded that they must participate in the general liquidation, and of late the receipts of grain in Chicago have increased; this is partly because of pressure brought against this class

by state governments and individuals, to induce them to part with a portion of their grain even at prices which they consider too low.

Curtailment of manufacturing continues, but at a rather slower pace than heretofore, and in some instances mills that closed in December have reopened in January. The demand for reductions in wages has been met, on the whole, rather cheerfully by the workers, and there is not a tithe of the disturbance in the labor market in the period of decline that occurred when prices were advancing. An unexampled volume of immigration into this country in the past few weeks has something to do with this spirit, as also has the reiteration of reports that millions more of Europeans are desirous of coming this way. Nevertheless the high cost of labor is still the greatest obstacle to the restoration of affairs to the old status. Almost equally is the spirit of profiteering a bar. Retailers have reduced prices on many articles, but in myriads of cases it is found that the gap between wholesale and retail is a wide one.

As to transportation cost, one need not expect any improvement, for the law requires that rates shall be charged which will produce interest of 5½ per cent on the capital, and the roads are now falling short of that boon. Wages in that interest will probably continue at their present level for a long period, and cost of material has gone only a part of the way down.

Money conditions have improved slightly, but rates are about as heretofore. With the Bank of England's proportion of reserve to liability the lowest in fifty-four years, one can see how little cooperation with our needs Europe can give us, and the pressure on capital in this country is still great.

The situation among wealthy and well-to-do people has an important bearing on the prospects of hospital service to the country. The endowment machinery in the heart of the American is not likely to work to full capacity until the whole business situation improves.

The fact that an article is selling below cost of production does not necessarily mean that it will soon rise, for we still have the element of wages, and little has been done toward cutting them down. Perhaps the most important sign of a possible further decline in drugs and chemicals is in the continued craze for the organization of new companies, which for November involved a capitalization of \$50,000,000. Nor does the increase in the production of certain articles on this side of the Atlantic necessarily mean lower prices.

The mining of arsenic has migrated from England to

Mexico, and Florida has a promising camphor industry, but in both these cases high wages and long hauls by rail are involved. European production is still the point to which one must look for low figures, and scarcely is there any limit to the amount of this class of goods that Germany can turn out, or at least to the poverty motive which will compel low quotations.

Then new things, to supersede old things, are coming in. The Standard Oil Company of New Jersey is producing petrolol to take the place of wood alcohol. That playful commodity, quinin, has been calling attention to itself lately, going to fifty-one cents per ounce, as against \$3.00 two years ago. It is now up ten cents or so from the low figure. It now has no high tariff to strengthen its backbone. We had, indeed, throughout the entire year an "easy" market. Citric and tartaric acid are at pre-war prices, quicksilver still slipping, lard oil, imitating the hogs, is running violently down a steep place. It is given out that the production of glycerin is smaller than for many years before the war. The same was said regarding raw silks, but within a short time the Canton and Shanghai articles have reached new low prices, following the collapse of last spring in the Tokio market.

Linens are the one strong item in fabrics, for Russia is out of the game, Belgium can produce only moderately, and Ireland is largely suspending operations with that commodity. But warehouses appear to be well filled, buyers are still on a strike, and even these hoarded elegancies must have their break. This situation apparently does not apply to hospital grades, in which the visible supply is limited.

Prices on food, clothing, and furnishings show a consistent decline, but here, again, retail prices apparently have not declined in the same ratio as wholesale and producers' prices.

Figures recently issued by the Department of Labor give interesting light on the comparative prices of general necessities:

"The figures cover expenditures in eight cities—Baltimore, Cleveland, Chicago, Detroit, New York, Philadelphia, San Francisco and Oakland, and Seattle.

The average cost in the eight cities at the beginning of the new year was 99.2 per cent over the average cost in 1914, while at the end of last June it was 115.1 per cent.

Using the 1914 cost as a base, the percentage increased cost of the various items in the eight cities were as follows, in June and December:

Food, June, 110.9; December, 75.6.

Clothing, June, 191.3; December, 159.5.

Housing, June, 41.6; December, 49.5.

Fuel and light, June, 57.6; December, 79.0.

Furniture and furnishings, June, 191.8; December, 181.9."

Why Linens Will Not Decline to Pre-War Prices

The following interesting communication, received recently from Mr. C. P. Coulter, president of H. W. Baker Linen Company, of New York, gives additional light on the linen situation:

Prices are declining on textiles, principally because of decreased demand and lower costs for labor and raw materials.

Only two of these factors, however, can influence the price of linens, as the raw material, flax, is scarcer than ever; in fact, almost famine conditions prevail and are quite likely to continue.

It is reported that Russia produced 388,000 tons of flax in 1914, or about 85 per cent of the world's supply; Austria-Hungary 5 per cent, and France, Belgium, Holland, and Great Britain the remaining 10 per cent. Considerable of Russia's flax was produced in the sections adjoining the Baltic Sea, invaded by the Germans early

in the war, consequently large stores of flax fell into their hands. As a result of war conditions, the export of flax from Russia into allied countries had been reduced to about 80,000 tons in 1918, the last year for which any figures are available, although it is certain the supply was even less in the years 1919 and 1920. During this period the production of France and Belgium was also naturally much reduced, although this shortage was offset to some extent by increased production in the British Isles, where the growing of flax was encouraged in every possible way by the government.

It is hardly likely, however, that farmers in the allied countries will continue to raise flax unless encouraged by high prices, as it is a crop requiring much attention, takes considerable out of the soil, and requires the farmer to handle partly decayed vegetable matter while standing waist deep in water.

In pre-war days the Russian peasants were compelled by their government to raise flax as a tax crop, but under soviet rule it is more than likely that the planting of flax will be discouraged, in order that the production of foodstuffs be increased.

Admitting, however, for the sake of argument, that in spite of these facts Russia produces more flax next year than she has in the last two, how is she going to export it with a transportation system so badly demoralized that several years are perhaps required to make exports possible, even though other countries resume trade with her.

It would seem, therefore, that for the next few years the world must depend upon the new republics of Estonia, Lithuania, and Latvia, formerly part of Russia's Baltic territory, and upon Czecho-Slovakia, to augment the meager supplies from the allied countries.

In view of these facts, it is more than likely that flax will continue to command its present price of £200 to £500 per ton, as against a pre-war value of £50 per ton.

It would seem reasonable, therefore, to eliminate the question of cost of raw material as a factor in determining the future cost of linens.

If this be so, only saving in the cost of labor and other items necessary in their manufacture can be depended upon to reduce the price of linens, and these considerations have already probably been discounted, as prices are now from 25 per cent to 33½ per cent below the peak."

Statistics of recent date show that the declines in hospital specialties have not been at all sensational, as compared with those of cotton, sugar, rubber, leather, and other articles of widely general consumption. On the basis of one hundred, January 1, 1914, twenty-five industrial chemicals are quoted at 200, against 242 a year ago; acids, 160, against 219; intermediates, 287, against 338; natural dyes, 142, against 226; pharmaceuticals, 225, against 293; crude drugs, 194, against 302; essential oils, 162, against 241.

The pull on this class of articles from the decline in leading staples will be strong. In the whole list of those commodities rallies have been feeble, and copper touched a new low at twelve and one-half cents at the close of the year, that is, it was about one-third of its maximum price during the war. Cotton is a little better in price than in the last days of December, but the cotton mills are still clogged with certain classes of goods, especially those used by the automobile companies. Steel yields grudgingly, the average on eight leading articles being in the ratio of 65 now to 85 as of the first of August. With Great Britain and Germany offering their products on a scale downward, it would seem that nothing but the restoration of a high tariff system can set up an effectual bar. The manufacturers of fabrics, almost steadily offering their goods down, with the mills running at only 25 to 50 per cent of capacity, are still feeling for the bottom and wondering whether there is any such thing. Wheat may be rescued by the fact that Russia is out of the market, and India, Australia, and Argentina have a long haul to reach the hungry of Europe.

REMOVABLE LIGHTING FIXTURES

HOSPITALS, sanatoriums, hotels, and even residences, have experienced difficulty in providing lighting facilities to meet changing conditions. This inadequacy of lighting facilities is due to several causes, among them the immobility of present ceiling fixtures and wall brackets, and the expense of installing or changing them. Both of these reasons result in an inability to adapt the fixture to the needs of the room after the furniture has been installed, or after any rearrangement of furniture has been made.



A wall bracket ready to put in place. Note the inconspicuous receptacle above.

It is the accepted custom among lighting engineers in planning a new building to provide for general illumination. This is as a rule standardized to a considerable degree throughout the building, and is designed to meet general rather than specific conditions. Additional lighting facilities are provided for by additional outlets, usually in the floor or baseboard, to which can be attached portable lamps, etc. Such arrangements for additional lighting facilities are not the most desirable, however, as these additional lights involve long extension cords, which are frequently in the way.

Under present conditions the lighting arrangement of a building can scarcely be expected to provide for more than the general illumination. To provide for specific or additional illumination of a room would involve the installation of numerous additional fixtures, which would mean considerable added expense, not only for installation, but also through unnecessary current consumption.

The elimination of these lighting difficulties has been made possible through a recent invention of Cantelo White, a New York electrical expert, and inventor of numerous well known improvements in lighting. This device consists of a ceiling and wall receptacle, with proper connecting plug of a movable character, which will hold the heaviest chandelier as securely as the present fixture with its permanently soldered connections, yet makes it possible to install or change a chandelier or wall bracket fitting in a few minutes. Furthermore, the receptacle is so inconspicuous that a sufficient number of out-

lets can be placed about a ceiling or wall to take care of any and all potential requirements, without impairing the appearance of the room.

This great step forward in the science of illumination is the result of the inventor's long study of lighting problems, including those of hospitals and similar institutions.

In his observations he saw the inconvenience of fixed lighting apparatus, the nuisance of lengthy electric cords, the trouble and expense of wiring when a fixture is moved from one place to another, and the necessity for quick and easy shifting of a light from one side or corner of a room to another, to suit the need of a patient, doctor, or nurse. His experiments led to the perfecting of a device whereby electric lights of all kinds can be attached to walls or ceilings, and shifted about with the ease of hanging a picture. The enormous advantage this device will be to all kinds of institutions can readily be seen.

The illustrations will give a clear picture of this invention. Fix in your mind the idea of two arc-shaped slots curving away from the face of the receptacle in opposite directions, and you have a fairly good conception of the construction of the inside of the ceiling receptacle. The plug connection for the ceiling receptacle consists of independent prongs, or blades, connected by lead wires to the chandelier lights. The prongs are curved in opposite directions like the prongs of an anchor, and, when inserted in the receptacle slots, cross one another in a most effective manner. The wall receptacle and plug is of much the same general design.

The plug is likewise easily attached to any wall fixture. When inserted in the outlet, its central curved blades pointing upward, it is strong enough to hold the heaviest fixture. The outlet much resembles the usual baseboard



The wall bracket is easily inserted in the wall receptacle.

plate, being inconspicuous as well as sanitary, because it is flush with the wall or ceiling.

Thus, the utmost flexibility of lighting, such as architects have been wishing to see for years, is possible in this device, whereby the mechanical and electrical connections are made at the same time.

The economy of the plan is apparent. The moment a fixture is needed in a particular place, one from another part of the building can be shifted at a moment's notice



The wall bracket in place ready to use.

to meet the different conditions. A ceiling fixture can be removed to a remote corner to prevent glare in a patient's eyes. Special lights in laboratories can be installed where needed, diagnostic lamps and electrical

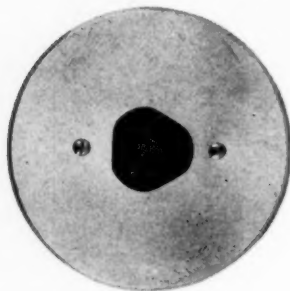


Ceiling plug.



Wall plug.

devices of various kinds can be fitted with proper plug to permit the use of the same receptacle as provided for the lighting fixtures. A few reserve fixtures will permit great increase in the illumination of a room or building. The sanitary features of the plan are also evident. As many or as few lights as desired can be put in a room,



Ceiling plate and receptacle.



Wall plate and receptacle.

if an adequate number of outlets is provided on the wall or ceiling. Also the fixtures may be lifted off and taken out of the room during cleaning, painting, or alterations. It is expected that the device will be marketed early this year.

WHEN YOU BUY ROLLING EQUIPMENT

It is an axiom, which unfortunately is frequently not considered, that rolling equipment is only as good as the wheels or the casters on which it is mounted. An ambulance with flat tires is useless, a stretcher with weak forks or wheels is dangerous; a broken caster promptly puts the truck out of commission.

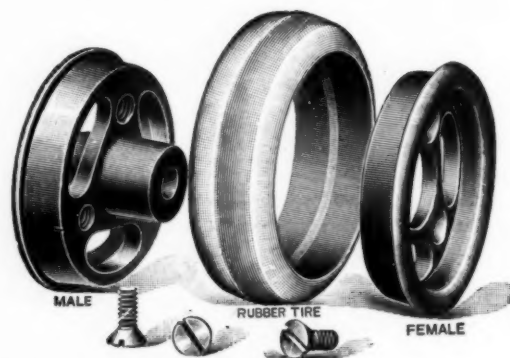


The wheels, tires, and rear wheel forks are frequently the weak points in invalid chair construction.

Such conclusions are obvious, but the great trouble is that the buyer of rolling equipment frequently does not realize this fact at the proper time, and does not properly safeguard his equipment at the time of purchase.

The majority of rolling equipment for hospital use is listed by the manufacturers, complete with wheels or casters, as the case may be. The buyer, before concluding the purchase, should investigate certain features of these wheels or casters to make sure that they will withstand the usage to which they will be subjected. In the case of casters, it is sometimes safer to specify certain standard types, made by firms specializing in caster manufacture, instead of the equipment supplied by the manufacturer.

The buyer of hospital equipment knows exactly for what such equipment is intended, he knows the weight that must be carried, and the strain to which the casters or parts of casters or wheels will be subjected. With such information in mind, he will find the manufacturers of



This illustration shows the ease with which tires can be removed and replaced, in certain types of casters.

wheels and casters ready to cooperate with him, and to recommend the best type of rolling equipment for the hospital's requirements.

There are a number of important points which should

be given especial attention in the purchase of rolling equipment. Probably the most important is the question of tires, whether used on a caster or a wheel, for rubber or rubber compound tires are required on practically all hospital equipment. The tire, in order to give service, must fit snugly to the metal rim, so that there is no suction or movement of the tire when in use. If the tire is not continuous, attention should be directed to the manner in which the ends are joined, as an opening between the ends frequently permits the loosening of the tire. This condition will naturally be found more frequently on the cheaper grades of wheels and casters, and in this same class it is almost invariably necessary in order to remedy the defect to put on a whole new wheel. Consequently, it is important after examining the fit of the tire to learn how the tire can be replaced if damaged or worn. This as a rule can easily be accomplished in invalid chairs.

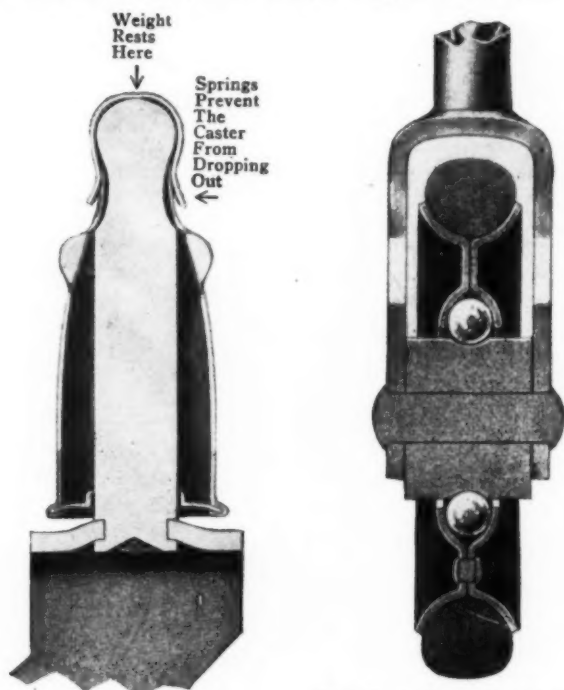
Many of the better grades of casters are also made so that new tires can be applied without special machinery, and without returning the wheel or caster to the factory.

Rubber tires are used almost entirely on invalid chairs, and also on some of the small suspension wheels used on wheeled stretchers, and the lighter types of food carts. On

ings for such forks, but these are liable to break, so malleable, or even steel, casters are better. This, however, does not necessarily apply to smaller casters or truck wheels. Owing to the design of forks for such wheels, there is less strain, and grey iron castings will give complete satisfaction.

Another point which largely govern the ease of operation is the construction of the swivel, such as the small rear wheel on invalid chairs, or the swivel wheels on stretchers and trucks. Frequently these are simply a plain bearing swivel which under load causes considerable friction, and makes the operation of the wheeled chair or the stretcher more difficult and more uneven. A ball-bearing swivel adds greatly to the comfort of the patient and the ease of operation. This same principle applies to the ordinary socket caster. In many types, the weight rests on the washer directly above the horn of the caster, resulting in considerable friction, particularly after the casters become worn or rusted. There are several improved types of casters in which the entire weight rests on the round headed pivot stem, virtually eliminating friction. On larger casters a ball-bearing swivel is frequently supplied.

Another essential point is the method of fastening the



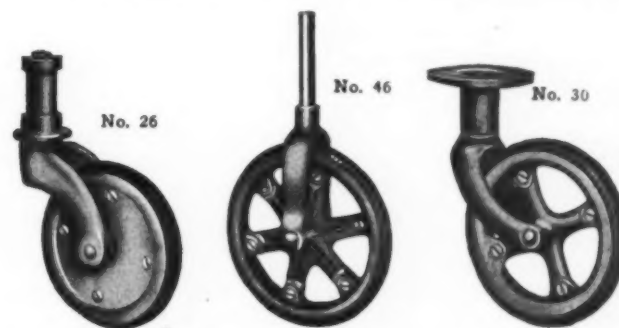
In this type of caster the weight rests on the round-headed pivot stem, reducing friction to the minimum.

The illustration shows the ball-bearing caster which revolves around the axle. This method of construction eliminates much wear.

caster and truck wheels a special compound is frequently employed which is claimed to have greater wearing qualities, and less tendency to stretch than rubber tires.

The wheels used on invalid chairs, wheeled stretchers, and similar equipment, are as a rule known as the suspension type of wheels. Before purchasing these, the buyer should carefully inspect them to see that a proper weight of rim stock is used so that the wheel will retain its shape; that the spokes are in proper and even tension, so that the wheel will run true and not twist or wobble; that the rivet heads of the spokes, whether at the rim or the hub, are sufficiently large so that they will not pull through or break.

The forks are frequently weak points on invalid chairs and stretchers. Some concerns have used grey iron cast-



The manufacture of casters and wheels is highly specialized, and there is a type now available for practically every purpose.

wheels onto the fork. Many of the cheaper grades of casters have nothing but a rivet fitted over one end, which allows, in a great many cases, the rivet to revolve in the fork, instead of the wheel revolving around the rivet or axle. This causes the fork to wear and makes the wheel wobbly. In fact, after time it will be necessary to replace the entire caster.

Another point to remember is that the larger the wheel the easier the caster turns, and the few dollars saved by specifying smaller casters will reduce the ease of operation and frequently shorten the life of the caster.

The manufacture of casters and wheels is now highly specialized, and with the right kind of foresight the buyer can secure a caster or wheel adapted in all respects to the use for which it is designed. The buyer must remember, however, in specifying this equipment that it is well worth while to buy something good, for it will be cheaper in the end.

INCREASED COFFEE CONSUMPTION

Hospital authorities are greatly interested in the marked increase in the consumption of coffee, not only among the general public, but in their institutions as well. Not only has the consumption of coffee increased, but the ratio of increase has been higher each year. While the coffee consumed yearly averaged but five pounds per person during the years from 1860 to 1870, the consumption from 1919 to 1920 was more than twice that figure, or over twelve pounds per person.

STANDARDIZE YOUR GOWN PURCHASES

The standardization of hospital supplies has been frequently discussed, with, however, little progress towards solution. It is evident, however, that even a limited standardization will effect economy in the use, sale, and manufacture of many products.

Hospital gowns are one product in which standardization is apparently needed. Such standardization should include size as well as material specification. At the present time there are a multitude of different qualities and designs used in the hospital field. This wide divergence may be largely due to the manufacturer who offers certain materials or perhaps skimps the proportions of the garment in order to secure price reduction. In the final analysis, however, the buyer is the person responsible for the lack of standardization. If he will specify certain standard requirements in size and material, it will do much to place the manufacture and sale of hospital garments on a standardized basis.

Before this can be done intelligently some knowledge of the construction of cotton materials is necessary. All cotton fabrics are made by interlacing two sets of threads (yarn), or one set of threads running lengthwise, the other crosswise back and forth, across the piece. The method of interlacing these two sets of threads determines the weave of the fabric.

There are a variety of weaves, but ordinarily, cotton fabrics can be divided into plain or twill weaves. In the plain weave, the threads interlace regularly one by one, and give a flat, even appearance. This style of weave is called sheeting.

In a twill or drill weave the threads run one way, usually lengthwise. The cross threads, however, skip a number of threads at regular intervals so that the cloth, when finished, has the appearance of threads running diagonally through it, although they actually run at right angles.

The "count" of the goods represents the number of threads running each way in one square inch. Thus, eighty by eighty-four, sixty by seventy-six, or forty-eight by forty-eight, are the number of threads per inch running each way.

The technical expression of weight is given decimally, for example, two-seventy-five means that two and three-quarter yards will weigh a pound. Similarly four-twenty-five means four and a quarter yards will weigh a pound.

Certain weaves and weights of goods are more suitable for some garments than others. The finer the count of goods, the higher the cost. This is a well established rule.

A number of hospital authorities have agreed on the weight and count most suitable for hospital garments. In their opinion these specifications prove more suitable in quality and durability. Superintendents or hospital buyers, in requesting bids on hospital garments, will safeguard their institution requirements by not specifying a lesser quality or grade than given below. In fact, a step towards standardization can be achieved by using these grades as the standards for hospital garments.

There are two weights of goods, medium and heavy, which it is claimed can be used most advantageously in the making of operating gowns and night shirts for hospital use. For the medium grade a count of eighty by seventy-six is recommended, to weigh four-twenty-five to the pound; for the heavy grade a count of forty-eight by forty-eight to weigh two-seventy-five to the pound, this being based on thirty-six-inch material.

It is also suggested that all operating gowns and night shirts should conform to certain standard sizes. A measurement which is based on the bust or chest measure,

say, forty inches, should be thirty-six inches long, and the actual measurement of the garment around the chest should be fifty inches. In other words, there should be at least ten inches of fullness allowed in each chest measurement, while the garment should measure at least sixty inches around the bottom.

Nurses' gowns should not be less than fifty-two inches in length, and the fullness of the gown should be ten inches larger than the size of the bust. Thus a garment for a forty-inch bust should actually measure fifty inches, while the measurement around the shirt at the bottom should be seventy-two inches.

Surgeons' operating gowns should be fifty-six inches long. These should have even greater fullness, and a forty-inch chest should measure sixty inches, i. e., at least twenty inches should be added to the chest measurement, while the bottom of the gown should have a circumference of seventy-eight inches.

In buying colored goods it is generally desirable to know whether the goods are yarn dyed or piece dyed. Gingham, as a rule, are yarn dyed, i. e., the yarn is dyed before the cloth is woven.

A SMALL PRACTICAL DISH WASHER

There has long been a demand among hospitals for a small practical dish washer for use in the kitchens of smaller hospitals, and in the ward and diet kitchens of the larger institutions. There has recently been marketed a small outfit which maintains all the features of the larger machines, and yet is compact and simple.

The machine is only two feet square, approximating the size of the ordinary phonograph cabinet. It is provided with doors on three sides so that it can be placed in one corner or against the wall.



The capacity of this new dish washer is given as two thousand pieces an hour, and it is claimed that it will wash and rinse a rack full of dishes, glasses, or silverware, in thirty seconds. With this machine the dishes are not only double washed, but double rinsed and steam sterilized, if desired. No towel drying is required, and every dish and glass is taken from the machine ready for use.

Hospital authorities have virtually agreed that it is desirable to wash dishes in the ward kitchens rather than return them to the main dish washing section, and this new outfit provides a ready means for doing so.

OCCUPATIONAL THERAPY AND REHABILITATION

Conducted by HERBERT J. HALL, M.D., President, National Society for the Promotion of Occupational Therapy, Devereux Mansion, Marblehead, Mass., and MRS. CARL HENRY DAVIS, Advisor in Occupational Therapy, 825 Lake Drive, Milwaukee, Wis.

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OCCUPATIONAL THERAPY IN THE CATHOLIC HOSPITALS OF MONTREAL*

BY LILY E. F. BARRY, HONORARY SECRETARY, CATHOLIC SOCIAL SERVICE GUILD, LECTURER IN STATISTICS AND HOSPITAL SOCIAL SERVICE, LOYOLA SCHOOL OF SOCIOLOGY AND SOCIAL SERVICE, MONTREAL

THE undeserved honor of addressing this distinguished audience is bestowed on me only as a poor proxy for one of the good sisters "whose right there is none to dispute" as regards priority, both in point of time, and for superior achievement in the field of hospital social service in Montreal. But a sister, when the moment comes to claim the credit for her good works, can never be found. She becomes invisible, like a pure spirit.

The Catholic Social Service Guild, which has been in existence five years, supplies, through a well equipped central bureau and staff of trained workers, the equivalent of a social service department for our Catholic hospitals and homes. The workers are trained by the Loyola School of Sociology and Social Service founded on the initiative of the Guild and now entering on its third year of existence. It is under the direction of Loyola College. The two years course, comprising a thorough grounding in basic sciences, with field work and visits to institutions, leads to a diploma granted by Montreal University.

An important link between the hospitals and the Guild is supplied by the Loyola Convalescent Home, carried on by the Catholic Women's League. Here the social worker may study a case at close quarters, with a view to placing in favorable environment when the working capacity has been restored. The attending physicians and devoted staff lend their hearty cooperation in this direction.

The employment department of the central bureau of the Guild is one of its most successful features. A monthly report is sent to the government for publication in the *Labour Gazette*. Special attention is paid to the placement of handicapped persons discharged from the various hospitals. Our activities extend to all classes of workers; and this is a distinct advantage, as it brings us in contact with a larger number of employers, many of whom yield to the social worker's plea on behalf of the handicapped man or woman, a trial of whom not infrequently gives results satisfactory to all concerned.

To understand the difficulties that confront us, it is important to keep in mind the numerical proportion of the English-speaking Catholic section to the total population. Our territory is bounded by a line drawn around

fourteen points—or parishes—(a fashionable number). Only about 60,000 souls, or 13.3 per cent of the entire population come directly under our influence.

We are but a thin strip compared to the French-speaking section, which extends over eighty odd parishes and represents about two-thirds of the population. A French central bureau, almost the counterpart of ours, facilitates cooperation in social service. We maintain close and harmonious relations with the French element; but, in practice, it is found impossible to bring the work of the two sections up to one uniform standard in all directions, or to secure united action on certain issues which affect the interests of the two divisions in a different way. I do not feel hopeful that this will ever be done; nor, in view of distinctive, deep-rooted racial characteristics, traditions and prejudices, that it is necessary or wise to attempt it. We have, however, the inestimable advantage of unified command under the Archbishop, and of our common faith, which creates an indissoluble bond of sympathy and good-will.

An intimate knowledge of both peoples—derived from long and close personal relations with them—convinces one that if each group receives frank and generous encouragement in an effort to reach its highest level, and, through its leaders, to cooperate in a friendly way with other groups, an ideal community would emerge much sooner from this plan of development than from one based on the principle of the bed of Procrustes—in which the victims were made to fit exactly by having their superfluous length cut off, or by forcible stretching, as the occasion demanded.

As far as problems of employment are concerned, our experience goes to show that race and creed lines tend happily to disappear when the worker is qualified for a job, or if the job appeals to the worker. Except where inability to speak or write the language is a real handicap, or where religious obligations might interfere with regularity of service, the question of race or creed is scarcely ever mentioned.

Occupational therapy has not been introduced into our general hospitals such as Notre Dame Hospital and the Hotel Dieu, nor is it likely to be, because it has not been found necessary or feasible. The number of hospital beds for emergencies in Montreal being—all told—only about 2,000 for a population of 801,000, it is imperative

*Read at the Social Service Section of the American Hospital Association Conference, Montreal, Canada, October 4-8, 1920.

that patients be discharged with the least possible delay. When illness or convalescence promises to be of long duration, the patient is transferred to one of the special hospitals with which Montreal is fortunately well supplied. This change is the more easily made as there is often relationship between the sister hospitals also the director of municipal assistance has power to effect such removals when beds become vacant in the institutions designated by the hospital authorities or the social worker.

It is in these special hospitals such as are conducted by the Grey Nuns and the Sisters of Providence, or the reformatories, including the Catholic Female Jail, under the direction of the Sisters of the Good Shepherd, in the Maternity Hospital of the Sisters of Mercy, and the home conducted by the Little Sisters of the Poor, that the most interesting studies may be made of occupational therapy and preparation of the handicapped for reappearance in the industrial world—failing which, they are rendered self-supporting in the institution, or in their own homes.

The sisters—whose lives are wholly consecrated to the service of the poor and helpless, who are never off duty nor absent from their post in the way of the secular worker, and who, in addition to the severe training of the novitiate, have long experience in practical work, brought to a high standard by previous generations imbued with the same lofty principles and urged by the same compelling motives of service to others—have an influence as teachers which cannot easily be surpassed by persons lacking their superfine qualifications. Habitually filling every moment of the day with useful occupation, the sisters are naturally ardent advocates as well as edifying exemplars of the value of work as a saving factor in every sense of the word. Therefore, they rejoice in an opportunity to encourage a patient's recovery and spirits by the tonic of light employment. This is offered in such an ingenious variety of interesting forms that a volume would not be sufficient to do justice to a description of such works. Plain sewing and knitting, embroidery, lacemaking, dressmaking, artificial flowers, modeling in wax or clay, typewriting and typesetting, bookbinding, Braille work, basket-weaving, bead work, carpentry, and metal work are taught with such marked success to defectives that the normal individual, viewing the results, is apt to feel a most embarrassing sense of personal inferiority.

When fit for more active employment, patients are trained to do housework, cooking, carpet-weaving, painting, care of furnaces and powerhouse, gardening, care of horses, driving, and other outdoor tasks. In the present acute scarcity of labor, especially of domestic servants, no difficulty is experienced in finding places in private families or business establishments for persons trained in our religious institutions and recommended by the sisters. Therefore it is seldom necessary for the Guild to intervene except where a patient does not happen to fit into any opening on the list kept at the institution.

Our central bureau has more contacts with the large employers of labor and therefore greater facilities for providing the higher remuneration needed by the father of a family.

A sympathetic attitude to these problems on the part of prominent citizens, professional men, members of the Guild, and other public-spirited, philanthropic persons, has greatly encouraged us in the attempt to find employment for the handicapped. Last year the Guild was notified of 1,748 vacancies. One hundred and ninety-eight permanent places and 787 temporary jobs were secured for our 1,176 applicants. Five hundred and seventy-two calls for help could not be met, though 191

applicants had to be turned away as unsuitable. Of these, the greater number were hopelessly unfit through age, intemperance, or incapacity from lack of training; very few of our applicants are free from handicap of some sort. The normal worker does not require much assistance in finding employment under existing conditions.

Special statistics covering this department of social activity in our hospitals and homes are not available; therefore I can give only a general notion of the amount of work being done and of its value to the community, at the same time extending to all our visitors, on behalf of the sisters, a cordial invitation to visit the institutions I have named, and see for themselves how these problems are met. One gratifying feature, common to them all, is the number of handicapped persons regularly employed by them, who in all probability would not be accepted elsewhere.

In one of our hospitals (the Hotel Dieu) a French ex-soldier, a widower, aged thirty-nine, who lost a leg in the war, looks after the garden. He was formerly an agricultural laborer. The sisters are delighted with his intelligence and thrift. He has succeeded in producing twenty-one kinds of vegetables where only five or six grew before, guarding against failure by a well arranged succession of crops.

Another ex-patient, formerly a chauffeur, disfigured by an abnormal growth in one eye, helps in the kitchen, peels vegetables, and makes himself generally useful. He is a cheerful, devout man who spends much of his leisure in the chapel. A truck elevator in the same institution is in charge of an ex-patient, very heavy and stout, who drags one leg. When not in his car, he busies himself in various ways, making keys, chains, picture frames, or any repairs; in fact is so useful that he is regarded as a household treasure.

The Grey Nuns, who have stretched a chain of fifteen hospitals across Canada and the United States, and who cared for 8,500 returned soldiers in their Guy Street Hospital, have a vast experience in handling every sort of human problem. The unmarried or deserted mother and her child, against whom every door is closed, may freely enter the Foundling Hospital and receive training as a nurse or in domestic work. In their special hospitals for the blind, for deaf mutes, and nervous patients, as in their splendid orphanages, constructive work of the highest order is done. The finest demonstrations in occupational therapy can be seen in these institutions.

The blind and partially blind are taught to be self-supporting by making brooms, caning chairs, tuning pianos, printing Braille, map-modeling, dressmaking, and tailoring. Deaf and dumb patients excel in needlework, clerical work, typewriting, and other remunerative occupations, seldom becoming a burden to their families or the community.

The Sisters of Providence, founded seventy-five years ago by Madam Gamelin of Montreal, have become especially prominent in social service, their noble aim being to care more particularly for the classes of suffering poor who are refused admission to other homes and hospitals. Their hospital for incurables would alone earn for them the deep gratitude of the city. It is a magnificent demonstration of the highest form of charity. Not many of the pitiful cases gathered in here are of the workers' class; but when the condition permits, instruction is given in some form of employment that shortens the weary hours and promises remuneration. A tuberculous girl was made happy recently when the Guild disposed of a piece of lace she had learned to make in the hospital—her first attempt—for the sum of \$2. On her

second piece she was able to put a price of \$3.50. The cheering effect of this new interest was noticeable in her improved health and spirits. A young girl, partly paralyzed, having one good arm, runs a passenger elevator which moves slowly and is never crowded. She is pleased and proud to be useful and self-supporting.

Occupational therapy is systematically practiced at the vast St. Jean de Dieu Hospital for the Insane, conducted by the Sisters of Providence. In the bi-monthly review of cases by the attending physicians and sisters, special attention is paid to the allotment and regulation of work from a therapeutic standpoint.

Two thousand patients are housed in the bright, cheerful pavilions. As many as possible are trained to work in the different departments. On a recent visit I found them preparing the meals, washing dishes, polishing floors, working in the garden, gathering apples in the orchard; also doing dressmaking, tailoring, carpet-weaving, painting, and a hundred other useful things as well as, if not better than, the average normal worker of the same grade. Musical and dramatic talent is carefully cultivated and artistic leanings are encouraged. One patient makes remarkably good mosaic work from the horns of cows killed in the abattoir. The material takes a high polish and is built up into vases and other decorative pieces.

The Sisters of Providence have also obtained good results in classes for epileptics. In the Hospice Gamelin, young girls afflicted with this disease are trained to work in the dining room and to help with housework. They also follow regular studies at stated hours. In the country house at Belocil, an open-air school for incurable children is in charge of sisters who have been trained in Belgium, Switzerland, Germany, and Paris. They are most practical and able to report marked improvement in cases committed to their care. Gardening is the favorite occupation, each child having its own little plot to cultivate. They are made to feel at home and happy, with opportunities for self-expression in painting, singing, acting, and other cheerful diversions.

Their work has to be varied, however, and the results are not permanent. It is costly, and yields no return. These cases must be artificially supported, mentally and spiritually. Left to themselves or removed to less favorable environment, they deteriorate, and when brought back to the home are in a worse state than before. Meddlesome people with good intentions but misplaced sympathy sometimes seek to interfere with the plans of the sisters, with sad consequences both for the patient and the community.

The infinite patience of the sisters is attested by the fact that when a patient is recognized as of the unteachable class—unable to do anything at all—the expedient is tried of giving her something to undo, often with complete success. Tearing up rags for carpet weaving, unraveling socks, or ripping up garments to be remade is congenial and useful occupation for those who have a taste for destruction.

The Sisters of Providence follow up their work by visiting the homes of the poor, giving relief, or nursing service as required, and finding employment for those who are able to work. Their anti-tuberculosis dispensary, the Bruchesi Institute, is an important health center at the East End.

The Sisters of the Good Shepherd confine their efforts strictly to reformatory work among girls and women. The delinquent child, the wayward girl, the victim of alcohol or cocaine is received as a voluntary penitent, or is committed to the institution for a term by order of

the court. Cases requiring medical treatment are, therefore, not received. Occupation is the rule for every inmate. Laundry work and gardening have been found most beneficial for alcoholic and neurasthenic cases. But it is hardly possible to name an indoor industry which is not practiced under the supervision of these devoted teachers and saviors of human derelicts.

The Sisters of Mercy, in their splendid Maternity Hospital for unmarried mothers, make a long period of residence a condition of admission. The patient receives valuable training in nursing, domestic service, needlework, or clerical work, according to her aptitude, and is physically, mentally, and morally rehabilitated by the period of wholesome seclusion, study, and practical work under skilled supervision.

The debt of gratitude the community owes the sisters cannot be overstated. An imaginative social worker has drawn a lurid picture of the effect on Montreal of turning loose the ten thousand or more inmates of the homes and hospitals conducted by the sisters if these devoted women should elect simultaneously to retire from social service into the bosom of their families. The procession of our aged, incurables, demented, orphans, paralyzed, delinquent, tuberculous, epileptic, deaf mute, and blind fellow citizens would surely help us all to realize the nature and extent of the sacrifices being made by these noble workers whose names are not even permitted to be mentioned in public. The complete statistics of their deeds of mercy shall not be known until the Recording Angel is pleased to reveal them.

Meanwhile, as there are doubtless some persons who would be more impressed by the opinion of a living authority still in the flesh, I am pleased to quote the tribute paid to the hospital managed by our Catholic sisters, by John D. Rockefeller, who said on one occasion:

"That they have surpassed all other organizations in economy of administration and faithful performance of duty is acknowledged by the governments of many states besides our own, who are glad to entrust them with important responsibilities."

SIX "MUSTS" FOR OCCUPATIONAL THERAPY

"If an institution is to carry on occupational therapy successfully, six things must be done," says Horatio M. Pollock, in the Maryland Psychiatric Quarterly. (1) Suitable buildings or rooms, and adequate equipment must be provided; (2) trained teachers must be employed; (3) a systematic progressive course of instruction must be outlined and followed; (4) an adequate system of records must be used; (5) a revolving capital fund must be provided; and (6) there must be full cooperation between physicians, nurses, and teachers of occupational therapy.

CRITICIZE THIS CARD INDEX FORM

It is very desirable that there should be a uniform system of recording clinical effects of prescribed occupations. With a generally accepted form in use, we shall have records of real value, not only to the active aides, but to the physicians who ought to be impressed with the importance of this new branch of medicine. An occupational therapy record which is written into the general record, or which is spread out over several filled-in blanks, is likely to be submerged and lost. A record which is separate and distinct, which can be kept on file for a while, and then clipped on to the medical record, will always be accessible and clear. It must also be brief. A proposed card index form, which seems to meet most of the requirements, is given below, and occupation teachers and directors are

requested to study it and to make any suggestions which may occur to them as desirable, communicating with Dr. Herbert J. Hall, Devereux Mansion, Marblehead, Mass., or Mrs. Carl Henry Davis, Milwaukee Downer College, Milwaukee, Wisconsin. Favorable or adverse criticism will be equally welcome. This form, which is being tried out at Devereux Mansion, has been o. k'd by Major A. C. Monahan, who is in charge of reconstruction activities at Walter Reed Hospital, Washington, D. C.

Occupational Therapy—Physio Therapy

Name of Hospital or Sanatorium or other Agency	Date
Name of Patient	Age M. or F. Ref: to Medical Record
Medical diagnosis (to be copied from medical record).	
Occupational or Physio Therapeutic treatment employed.	
Estimate of possible results of treatment. Signed by medical officer and by O. T. or P. T. aide.	
Weekly progress. Kind of treatment. Approximate number of hours per day.	
1st week.	
2nd week.	
3rd week.	
4th week.	
Estimate of results accomplished during the month. To be signed by medical officer and O. T. or P. T. aide.	
Morale.	
Physical improvement.	
Technical skill.	
Notes:	

Signed—Medical Officer:

Signed—O. T. or P. T. Aide:

NEWS ITEMS

Miss Meta Rupp, formerly head aide at Fox Hills Hospital, Staten Island, has been appointed assistant to the executive director of the New York State Society for the Promotion of Occupational Therapy.

The authorities of the Boston City Hospital have set apart a room in the Nurses' Home for the use of nurses who are studying this special branch of nursing. Much courtesy has been shown the pupils in this institution.

Miss Jessie Stark has been appointed teacher of occupational therapy in the tuberculosis wards at Bellevue Hospital. Miss Stark served four years in the military hospitals in Canada and is an experienced and resourceful aide.

The occupational therapy work at the National Sanatorium is being carried on by the Federal Board for Vocational Education under the immediate charge of Miss Grace Bryant, formerly of the Army Sanatorium, at Oteen, N. C.

The United States Public Health Service has taken over the occupational department and staff at the Wisconsin Psychiatric Institute, Mendota, Wis. Mr. Russell Bird, who organized the department, and who is now in charge of the Public Health Service Hospital, was for a number of years assistant to the director of men's occupations at Bloomingdale, White Plains, New York.

Miss Helen Washburn, formerly in the United States Public Health Service, stationed first at New Haven, Conn., and later at Oteen, N. C., has left the service and has been given charge of occupational therapy at Monroe County (tuberculous) Sanatorium, Rochester, N. Y.

The medical service of the National Tuberculosis Association proposes to organize a representative exhibit of occupational therapy work in sanatoriums throughout the country, to be displayed at the annual meeting of the National Association to be held in New York City next June.

The National Sanatorium was formerly the Mountain Branch of the National Soldiers' Home for Disabled Volunteer Soldiers, and was reorganized as a sanatorium for ex-service men of the World War under an act of Congress of June, 1920, authorizing the use of National Soldiers' Homes for the care of men disabled in the World War.

A very definite forecast of the interest which will be taken in the next annual conference of the National Society for the Promotion of Occupational Therapy to be held in Baltimore, Md., next fall, may be drawn from the fact that about seventy-five workers have affiliated themselves with the society in the past three months. Applications are continuing to come in to the secretary, Louis J. Haas, Bloomingdale Hospital, White Plains, New York.

A large measure of occupational therapy is being provided for at the National Sanatorium, Johnson City, Tennessee, which is a 1,000-bed institution devoted to the treatment of tuberculous ex-service men. Dr. Glenford Bellis, the superintendent, formerly of Muirdale Sanatorium, Wauwatosa, Milwaukee, stated recently that he expects that 700 out of the 1,000 patients will be engaged in some form of therapeutic activity. Dr. Bellis is a great believer in this work, and has adopted the special term of "industrial recreation" for the stage when the patients are able to leave the wards or "cure porches," and go to the special arts and crafts rooms.

Miss Mary Putnam of the New York Visiting Committee, who has done valuable work in occupational therapy at Bellevue Hospital, has resigned her position in New York and will go to the Green Gables Sanatorium, at Lincoln, Nebraska, as director of therapeutic occupations. Dr. Benjamin F. Bailey, who is head of the institution, promises a free hand. Miss Putman's record at Devereux Mansion in Marblehead, Mass., at the State Hospital in Middletown, Conn., as well as in New York City, assures for the Nebraska institution a high place in occupational therapy circles. Before going to Nebraska, Miss Putman will spend two months organizing the occupational therapy department of the Boston Psychopathic Hospital. Miss Putman will contribute regularly to the occupational therapy section of THE MODERN HOSPITAL, giving notes of progress in the new field.

Occupational therapy was largely represented in the pageant of Jewish Charities held at the Hotel Pennsylvania December 14 to 16, when ninety-two social service institutions, affiliated with the Federation for Support of Jewish Charities, demonstrated their work. The Montefiore Home and Hospital for chronic cripples showed a group of patients in wheel chairs demonstrating their manual work. A physical training instructor (one of the nine employed in the Hospital for Deformities and Joint Diseases) demonstrated physical drill and exercise which the cripples receive in that hospital. The exhibit mentioned was under the women's division of the ways and means committee of the Federation for the Support of Jewish Philanthropic Societies, of which Mrs. Sidney Borg is chairman. Mrs. Borg has been consistently interested in occupational therapy for several years, and has been one of its most loyal supporters.

Dr. I. M. Rubinow, director of the American Zionist Medical Unit, has gone to Palestine, with a commission to build a hospital in Tiberias, to cost between \$50,000 and \$70,000. Other activities which Dr. Rubinow will engage in will be an anti-malarial campaign, and the medical control of immigration.

HEALTH AND MODERN INDUSTRY

FIELD HOSPITALS IN CONSTRUCTION WORK *

BY J. P. CLEARY, M.D., DU PONT ENGINEERING COMPANY, DETROIT, MICHIGAN

THE importance of field hospitals in construction work is steadily gaining greater recognition. They have, indeed, become an indispensable part of organizations in that particular field of labor. It is my purpose, or rather my desire, to suggest some data from which a firmer conviction may be gained of their value; value that is both practical and altruistic. It may be added that full discussion of the subject in all its ramifications would consume more time than my hearers have to give, and hence only the main ideas relating to the matter will be advanced.

In the initial stages of these components of the complete scheme of a working plant, rendering first aid to the injured seemed the end at which to aim, but field hospital service has obviously become extended far beyond that original scope. It now incorporates within the bounds of its efforts the conserving of the general health of the workmen, their social welfare, and their relative fitness for the tasks they assume.

The efficiency of the worker in the strict line of his employment is easily seen to depend to a certain degree upon his home life, his general environment, and the entire social status. These facts appear, perhaps, to savor of some sort of scientific theory, and invoke sociology or kindred ideas of wide projection, but one gains easily the notion that herein science is not entirely technical, nor the principles too involved for application in industrial and labor problems.

Accepting as axiomatic that the interests of both the employer and employee are identical in the last analysis, it behooves all concerned to consider in some detail the practical advantages of field hospital service.

The employer derives what may be styled a mercenary benefit, but he also enjoys the reflex action of practical humanity. The time, the very essence of constructive work, which would otherwise be wasted by removal of an injured workman to a hospital or physician's office some distance away from the immediate field of labor, is saved, and also the attendant expense. The employer has the chance to show sincere sympathy for the suffering employee by providing the means of caring for the injured on the "home grounds." Then, quick conveyance to some distant hospital or office entails in itself aggravation of the accident or disease. Measured in dollars and cents, elements to be watched in these days, the economy of treatment nearby cannot escape attention. The opportunity to administer instant remedies, or make quick

diagnoses, and thus obtain a grasp upon the malady or injury immediately, can easily be figured by business men in terms of money. The return of the employee to his work as quickly as possible is an important consideration, and in this desideratum employer and employee share equally.

The cost of installing and maintaining a hospital is more than offset by the advantages derived. Insurance companies give a lower rate on liability insurance to concerns maintaining a first aid station at their plants. The expenditure for the physician's services, the supplies used, the equipment, and all other expenses can be easily ascertained, but it would be difficult, indeed, to determine the actual monetary returns from the investment, for the influences of the plant hospital are wide and numerous.

In the construction of a plant for the Cadillac Motor Car Company in Detroit, Mich., the Du Pont Engineering Company, from August, 1919, to August, 1920, employed, all told, about 17,000 men, the maximum at any one time being about 3,600, and the minimum about 800. Construction work has many hazards, probably many more than exist in industries engaged in operation. During the year referred to there were 4,490 injuries. Eighty of the number were major injuries, necessitating loss of time. Of these eighty injuries, four resulted fatally, one in permanent, total disability, and the remaining seventy-five caused a loss of approximately 14,752 working hours, an average of 196.6 hours per major accident. In addition to the 4,490 first dressings or treatments administered, approximately 3,229 redressings were required, amounting to 7,719 treatments for injuries, administered during the year.

It is estimated that 3,500 medical cases were treated during this time, making a total of 11,219 treatments given. During the influenza epidemic last winter, on an average of thirty medical cases were treated every day. Of the 11,219 treatments, perhaps 1,432 were required in cases of major injuries, leaving 9,787 treatments administered for minor injuries or illness.

The cost of equipping and maintaining the plant hospital here for the period mentioned amounted to \$6,800. Of this amount, \$5,900 was applied to the treatment of minor injuries and medical cases. Dividing this amount by 9,787, the number of treatments, gives an average cost of sixty cents each.

During this period of time, 15,765 men were examined by the medical department, and 15,615 were accepted, and placed on the company's roll. In addition to this num-

*Delivered before the Construction Section at the Ninth Annual Safety Council, at Milwaukee, Wisconsin, September 29, 1920.

ber, there were approximately 2,500 men on the rolls of the sub-contractors during this time, making a total of 18,115 men who were protected by the medical department during the year in question. This amounts to an expenditure of approximately thirty-seven cents for each man so protected.

During the same year there were 366 penetrating wounds of the feet, resulting from stepping on nails. Of that number, two, or .54 of 1 per cent, resulted in lost time.

It may be of general interest to know that in the dye works of the Du Pont Company at Wilmington, Del., during the year 1919, with an average working force of 625 men, the compensation paid during that period was only \$6.00, a really remarkable record. In the same plant 7,778 medical and accident cases were treated during the year referred to, at a total cost of \$2,383.41, or an average of thirty-one cents per case. In the first six months of 1920, the Wilmington plant had 1,207 surgical cases, and of that number only five were serious enough to necessitate any loss of time.

To be of greatest value, the field hospital should be centrally located, so that it may be easily and quickly reached by the injured. Its location should be pointed out to all new employees before they start to work. Whenever possible, the employment department should be in close proximity to the hospital, so as to facilitate the examination of applicants for work. The hospital should not be placed in a noisy portion of the plant where the rumbling of heavy trucks or machinery would interfere with the efficient use of a stethoscope in making physical examinations. For industries employing more than a thousand men, there should be a plant dispensary and a physician constantly in attendance. The size and extent of hospital equipment necessary depends upon the number of employees. For an industry employing a large number of men, the hospital should contain a waiting room equipped with chairs or benches, and a quiet office where files and a few cots may be kept, so that employees may lie down to overcome some temporary condition, and return to work within an hour or two. There should be an examining room for the doctor. This room should be quiet, and should contain an examining table, a writing desk, several chairs, and other necessary equipment. It should be closed off from the other rooms, so that confidential conversations with the various employees may be held here. In addition, the hospital should contain a surgical room, where accident cases can receive immediate attention. An x-ray machine and sterilizing room would also be valuable additions.

Where the number of employees would not justify the expense of maintaining a physician in the plant, arrangements should be made with a nearby physician to take care of accident cases, and to allow his office to be used for the purpose of making the medical examinations. In places where such an arrangement cannot be made, one or two promising men, such as foremen, could be easily trained to administer first aid. In plants engaged in night work, men with such training would be of considerable value. All plants, no matter how small the number of employees, should have first aid kits available for immediate use.

To obtain the best possible results, the cooperation of the employees is necessary. No effort should be spared to bring them to a realization of the importance of reporting for medical treatment immediately after an accident. They should be made to understand that they will not be docked for the time spent in having their injuries treated. To overcome the hesitancy of the workmen

about going to the hospital for treatment of slight injuries, a first aid printed slip should be given by the foremen to the injured employees to take to the hospital; this seems to impress upon the injured employee the necessity of receiving medical attention. All injuries, no matter how slight, should be given medical attention, the foremen should be made to realize the importance of this.

Another phase of the value of field hospitals in construction work is afforded by the physical examination of applicants for employment. Contagious and infectious diseases, heart lesions, impaired vision, deformities, malformation, and defects of all kinds, both congenital and acquired, may thus be detected, and unfit applicants can be kept from communicating actual disease to their fellow workmen, or increasing the hazards of accident through their neglect, oversight, or bodily defect. It is needless to remark how this branch of the subject expands upon meditation. It has become a recognized obligation, morally and legally binding employers to eliminate from their forces all whose ailments or defects are such as to enhance the risk of accidents or transmit disease. All must remember how steadily these doctrines of denying employment to the unfit have progressed in acceptance. Human life cannot be placed in jeopardy by careless hiring of the members of the working group.

The field hospital service can be utilized to restore to health those temporarily incapacitated by minor ailments. By this means the labor unit is conserved. The saving of mankind has become of supreme importance, certainly of equal and as far reaching value to the future as the conservation of material resources, in the development of which the human factor is demanded. Such care responds to the dictates of modern thought. It spells wider prosperity.

The doctor can be of inestimable value to a construction organization, by a proper and sympathetic attitude toward the workmen, and by his willingness to show the men that the company has their interests at heart, both in physical examination and the treating of their injuries. In the physical examination of applicants for employment, the employee has the advantage of an early discovery of disease, and therefore a more rapid and sure cure, while to the employer there is a reduction in loss of time due to sickness and epidemics. To those employees with organic diseases, the danger of overwork and hazardous occupations can be shown, and the employer gains by a reduction in risks for compensation due to accident disability, deformities, and death. In advising and treating the sick there is brought to the employees, protection from contagious diseases and to the employer a steadier working force. By efficient medical treatment the employer gains an increase in the general efficiency of the working force, and the good will of the employees.

The field hospital has both the mercenary and the altruistic phase, the ledger showing a profit, and the heart feeling a warmer pulsation. In conclusion, it may not seem too burdensome to recur to one branch of service not directly within the hospital's scope, but so allied with it that it can hardly be overlooked. It relates to the possibility of the workmen revealing to the doctor their home influences, the grievances, fancied or real, within their homes. It requires no argument to gain agreement that such tribulations affect the efficiency of a workman; perplexity, brooding, suffering, mental anguish, all perhaps the products of transitory unhappiness, impair the usefulness of the employee. Field hospital work affords opportunity for the conscientious doctor to give counsel, and often adjust these differences and disturbing factors in the workman's life.

DISPENSARIES AND OUT-PATIENT DEPARTMENTS

Conducted by MICHAEL M. DAVIS, JR.

Executive Secretary, Committee on Dispensary Development, United Hospital Fund of New York, 15 W. 43rd Street, New York

WHAT IS A DISPENSARY?

BY ANNA MANN RICHARDSON, M. D., NEW YORK CITY

WHAT is a dispensary? What do its friends, clients, and employees believe it to be?

To the hospital it is a convenient assistant. It serves as a medium through which to keep a point of contact with patients who have not fully recovered their health while in the hospital. It selects from among its many clients suitable cases for bed care. It receives and treats patients applying for hospital care, but not really needing it. It becomes an inconvenience, however, when directly connected with the hospital, so as to be dependent upon the laboratories of the latter. Dispensary needs are usually regarded as of minor importance, because the dispensary patients are so much less seriously afflicted than are those of the hospital.

To the physician, whether connected with the dispensary or not, the significance of the "outpatient department" is in accordance with his professional status and temperament. The recent graduate finds in the dispensary an interesting outlet for his newly acquired knowledge, and a clientele delivered at his door, as it were. Patients have no choice of physicians, and by prompt and regular attendance he can assure himself of a following, despite inexperience. The more experienced doctor finds dispensary work narrowing. Rare and unfamiliar conditions come to him for treatment in the dispensary with less and less frequency, as time goes on. Constipation, headaches, coughs and colds, follow each other in rapid succession, absorbing the limited time he can spare for dispensary work. If he is more interested in disease than in human beings, he is tempted to drop out of the work, and remains only because it may lead to a hospital appointment, affording him opportunity to treat really sick people. From the viewpoint of the older, and still more experienced physician, dispensary work provides opportunity to teach students and younger men, which imparting of knowledge is a satisfaction in itself. If there are no students, the actual work, assistance and advice freely given to troubled souls, may be sufficient recompense.

To the apothecary, registrar, filing clerk, and clinic nurse, the dispensary is their individual place of employment. They give service on a more or less rigid time basis, and resent overzealous interest of physicians in patients, interest that takes time and keeps them on duty over hours. To these clinic assistants, speed in handling patients is the acme of dispensary efficiency, and physicians devoting an hour to four or five patients, are regarded with scorn.

The patient with previous experience regards the dispensary, first, as a possible source of relief from discom-

fort. The cough or the pain may be lessened through the medium of medicine, costing less than that purchased at the drug store; and in addition, judgment regarding his condition will be supplied. Confirmation of the patient's own interpretation of his trouble is usually sought. Secondly, the dispensary is the agency through which to consult specialists, its complete equipment and many doctors make it an excellent place to obtain special advice at a low cost. The usual debate for the patient who has not established a dispensary connection, is, shall I go to the druggist and get the medicine that cured my neighbor of his cough, or shall I take time to go to the clinic? Frequently the decision is in favor of the clinic, because the potential patient has more time than money. Again, the dispensary is resorted to when self-medication has failed, neighbors and the druggist have disagreed as to just what is the trouble, or what will relieve it, and a new opinion is desired.

The medical student usually regards the dispensary as a minor hospital. Lesser things, surgically, are done there; less serious cases are seen; the work is not medically dramatic. He may have more responsibility for the patient's welfare, but he is only thus trusted because of the mild nature of the condition. If he is of a given temperament, he will convince himself that every patient is a neurotic, with no organic difficulty, while if of another temperament, he will be absolutely sure that the majority of his patients have something deadly the matter with them. Whatever his disposition, he is sure to feel that the relief of the disease from which the patient is suffering is the main concern of the dispensary.

The average well-to-do lay individual in the community thinks the dispensaries are necessary evils; "The poor we have always with us," and the poor need care when sick. The support of the work is one of many worthy causes calling for consideration.

Social Workers' Point of View

Social workers differ from all others associated with the dispensary, because they are not interested primarily in the details of the physical condition of the patient, which they believe to be the concern of the doctors and nurses. The social workers are concerned with the progress and comfort of the patient, and with the problem of teaching him to live so as to avoid disease and illness. This means that they are interested in the causes of his illness rather than in the effects, and they work to get at the causes. These causes are even more varied and individual than the diseases or weaknesses resulting therefrom. Social

workers conceive the removal of such causes to be their contribution to the welfare of the patient, and to dispensary accomplishment.

All these attitudes toward the dispensary have been correct at some stage of its development. Today, the social service workers are seemingly the only group with some understanding of the present state of medical progress in its relation to the care of dispensary patients.

Individuals working in various departments have seen the vision of dispensary possibilities, but not in sufficient numbers to effect reconstruction. The dispensary has a unique opportunity to do constructive health work. Its clientele is composed of people seeking help for conditions that can actually be relieved, in the majority of instances. The importance of the fact that the patients seek the dispensary cannot be over-emphasized in its bearing on their care. They recognize that they are in trouble, and are seeking help; they are in a receptive mental attitude. A little wise care at this juncture may avoid many serious consequences. There are two essentials for constructive health education, desire and occasion, and the presence of these provide for the dispensary its unique opportunity. When this becomes generally recognized, the hospital will appreciate that the distressing cases filling its wards are the results of early neglect, and might have been averted through a better organization of dispensaries. It will exert all possible effort to aid in the efficient functioning of the dispensaries. The laboratories also will then be ready to further all dispensary work, and to assist in every way to make it thorough and complete.

Causes of Illness Will Be Sought

Doctors, old and young, will more earnestly endeavor, with the aid of social service, to comprehend the reasons underlying their patients' physical ills, and will try to understand the situation, in their homes, at their work, and in all phases of their lives. They will assure themselves that they are getting at the real trouble in each individual case, and will endeavor to see that the patient understands his condition, and what to do in the effort to relieve it. Dispensary cases will no longer be monotonous. Each will stand out as an individual problem, with infinite possibilities.

Patients will find that by following directions given, applicable to their special conditions, trouble will be relieved before it has advanced too far, and they will seek advice and periodic examinations. The apothecary's work will be reduced in volume, and other employees will have the satisfaction of working more effectively, because their labors will be increasingly preventive rather than curative.

Last, but not least, the general public will learn that the dispensary is not a necessary evil and burden, maintained to patch up diseased bodies, but a veritable fount of inspiration in the care of themselves and their children, and a source of wise and pertinent counsel in all matters of public health.

With this broader use of the real opportunities of the dispensary, all its friends, clients, and employees will find themselves united in the common purpose of controlling disease and preventing its development; they will "beat the hospital to it," and stamp out of existence many of the conditions which place so many patients in hospital wards.

The most precious possession of mankind is the human experience won through the vision of great moral ideals, the eager pursuit of them, joy and sorrow in the service of them, life, love, death, and hope, under their reign.—G. A. Gordon.

THE GOOD SAMARITAN DISPENSARY

Dr. Louis Faugeres Bishop, president of the Good Samaritan Dispensary of New York, in the last annual report (1919) of this institution, writes the following notable program for dispensary service: The dispensary should stand for the ideal of improving the standard of medical practice and the condition of public health. This means that a distinct effort should be made toward public health education in connection with our work.

Dispensaries were originally started in the seventeenth century with the idea of supplying needed medical help to the destitute. Now, the great dispensaries of the world are public health centers where a high standard of medical practice is carried on to give the general public the same high class service that the rich are able to pay for.

The question of where the average physician belongs in this new order of things is a difficult one to answer and is a matter of world-wide debate at the present time. It would seem, however, that unless the care of the health of the people is to become a matter of pure state control and administration, there must be institutions cooperating with the practicing physicians of the city where they can obtain for their patients high class special assistance, retaining the patients under their own general supervision. The idea of abolishing by means of law the competition between public medical philanthropy, and those physicians who treat the same people in private, has utterly failed and must be abandoned. For that must be substituted cooperation, where the dispensary helps the average physician to bring his practice up to a satisfactory degree of technical completeness, for which service the patient must pay enough to support the work when the matter of rent, cost of administration, profit and interest on capital are provided by the endowment of the institution.

REPORTING CASES OF TUBERCULOSIS NEGLECTED

The United States Public Health Service has issued figures on the reporting of pulmonary tuberculosis for the year 1918, which are very discouraging to those who are working for the control of this disease through the health authorities. Out of 347 cities of 10,000 to 100,000 population, only eleven showed more than five cases reported for every annual death. About 40 per cent of this group of cities had fewer cases reported than deaths.

Among the group of cities of 100,000 population or over, the situation is even worse. Not one of this group of sixty-six cities showed as many as five cases reported for every annual death, and only one, Seattle, Wash., showed as many as three reported.

On a statewide basis, out of thirty-eight states reporting, not one showed more than 1.8 cases reported for each annual death, and only six of this group showed more living cases than annual deaths.

The fact that the fundamental principle of all epidemiological work requires that knowledge of the living cases of an infectious disease be in the hands of the health authorities, makes one realize how serious such a situation as that found by the Public Health Service is. The problem of reporting cases is fundamentally one of education, both of the lay and medical public. Secondly, it is one of having an organization for digging out cases that everyone knows exist in the average American community. We must provide enough nurses, clinics, medical consultants, and other agencies to find the cases, for until we do, the campaign against tuberculosis will lag.

VENEREAL DISEASES AND THE HOSPITAL

Conducted by ALEC N. THOMSON, M.D.

Director, Department of Medical Activities

The American Social Hygiene Association, 105 W. Fortieth St.,
New York City

PUBLIC HEALTH COMMITTEE REPORTS ON DISPENSARY SITUATION

In *Social Hygiene* for July, 1920, there appears a most interesting article on "Venereal Disease Clinics." This article is a section of the report of an exhaustive investigation of clinical and dispensary facilities in New York City, which was conducted during the year 1919 by the Public Health Committee of the New York Academy of Medicine, under the direction of Dr. E. H. Lewinski-Corwin, its executive secretary.

The report covered every phase of the dispensary situation. Many thousands of records were studied, thousands of patients were interviewed in their homes and at dispensaries; and the organization, administration, systems of accounting, and record keeping of the dispensaries, were thoroughly examined.

The study of organization is limited to fourteen institutions. Dr. Corwin says: "Because of the social significance of these diseases, and the important part the clinics play in the campaign against venereal disease, more emphasis has been laid upon clinic procedure than in the other branches of the out-patient departments, except the tuberculosis clinics."

Under the heading, "Treatment of Syphilis and Gonorrhea," the study is based on: (1) department in which treated, (2) clinic hours, (3) space and overcrowding, (4) laboratory tests, (5) records, (6) follow-up, (7) instructions to patients, (8) methods of treatment (9) charges for treatment, (10) discharge of patients.

The summary of clinics for the treatment of syphilis shows, as Dr. Corwin writes, that they are handicapped in three general directions: "first, by lack of space, clerical assistance, and funds; second, by a deficient administrative organization; and third, by the lack of the spirit of scientific research."

PROGRESS IN SEX EDUCATION

The Cincinnati Social Hygiene Society purposes to extend and strengthen its educational program. To help attain this result it has secured the services of Mr. E. F. Van Buskirk, M.A., as its executive secretary and educational director. During the past two years Mr. Van Buskirk, representing the United States Public Health Service and the United States Bureau of Education, has organized twenty-seven state or regional conferences for educators. Mr. Van Buskirk has now been given a lectureship at the University of Cincinnati upon the teaching of hygiene. His course will be an extension course in sex education, and will be based on certain assumptions regarding the attitude of leading educators toward sex education in the high school, which Mr. Van Buskirk's experience has led him to make. These are: that there

is a general recognition of the need, but a general opposition to any specialized course, or to any over-emphasis of the subject; and an almost unanimous agreement that, provided there are properly prepared teachers available, sex education should be given a place in certain standard courses of study.

The Cincinnati Social Hygiene Society, while intensely interested in such educational work as that indicated above, expects also to continue its work along other lines of social hygiene. To this end it pledges whatever aid it can give in advancing the four-fold "American Plan" of social hygiene: Medical Measures; Law Enforcement; Recreation; and Education.

THE ROLE OF THE LABORATORY IN THE CONTROL OF VENEREAL DISEASE*

In the control, both prevention and cure, of any communicable disease, the laboratory has certain definite functions, as well as equally definite limitations, although the limitations are not so readily acknowledged by the clinician as by the laboratory worker.

Theoretically, at least, the laboratory should be able: (a) to identify or discover the causative agent for each disease; (b) to determine which tissues are apt to be infected with the organism; (c) to determine in what discharges the organism leaves the body of the infected individual; (d) to determine the duration of life of the organism as a parasite; (e) to determine who are immune; (f) to produce biological products for inducing immunity or cure; (g) to produce chemical products for killing the organism in the infected host.

In Canada, venereal diseases are the only communicable diseases against which the Federal Government has made an active campaign in money appropriations.

In all acts relating to them there is a clause prescribing a fine or jail penalty for any one who "commits any act which leads or is likely to lead to the infection of another person." Penalties are prescribed for failure to undergo treatment. This legal aspect entails the greatest necessity for legal exactitude, in addition to scientific accuracy of all data upon which these penalties are sought to be exacted.

During the last few years great faith has been placed upon the Wassermann test as a guide for treatment of syphilis. From a legal standpoint this test has several defects. One is that there is no uniform standard, and therefore work in one laboratory does not coordinate with work in others. The enunciation of such a standard might well be undertaken by the health department. Another

*A brief extract of an article by R. H. Mullin, B.A., M.B., which appeared in the *Public Health Journal*, official organ of the Canadian Public Health Association, for September, 1920.

defect is that the legal soundness of the test must be fully established.

The Wassermann test is not absolutely accurate in either direction. Positive results have been known to have been obtained in cases where syphilis was not present. On the other hand, some cases of uncured syphilis will give a negative result, especially after the use of alcohol. Again, certain variations in results have been obtained under altered conditions. It is realized that in certain cases the intensity of the test may change from day to day through a considerable range, for no apparent reason. Then, too, there is a variation in results, depending upon the body fluid used for the test.

In the treatment of gonorrhea there are fewer difficulties for the laboratory worker. Cultivation of the organism is much more easily attained. Unfortunately the complement fixation test in this disease is not on as firm a foundation clinically as in syphilis, in spite of the fact that specific antigens are available.

In both diseases the laboratory has a very important and much-needed function of investigation. Biological preparations for treatment are still for the future. Although brilliant results have been obtained with the arsenical preparations, it cannot be assumed that the goal in this work has been reached. Most of all, for the purposes of control, an accurate and sure means of determining the end of the infectious period is urgently demanded.

More progress will be made if the limitations are clearly recognized by those in whose hands the guidance of these efforts is placed. It must be recognized that in spite of the results that have been obtained in the biology, serology, and therapy of these diseases, laboratory methods alone will not give an infallible answer to the all-important question of "when an individual who has been infected is safe to return to the full and unrestricted exercise of his citizenship." The answer, such as it is, should be founded upon clinical observations, reinforced by the intelligent interpretation of laboratory examinations. This entails the closest and most cordial cooperation between these two branches of the service.

SOCIAL WORK ON VENEREAL DISEASE

The following article appeared in the November, 1920, issue of *Health News*, the monthly bulletin of the New York State Department of Health.

The State Department of Health has asked that all hospitals make the complement fixation test of blood a part of their routine examination of patients. A survey of hospitals, both state and private, has been made, and where this practice has not already been instituted, the authorities have been asked to do so.

In order that some institutions, as, for instance, the orphanages, tuberculosis and state hospitals, might better carry out this work in the future, the department offered to assist them in taking the specimens from their present resident population. The response received was gratifying. Thirty-four institutions accepted and received the assistance prior to September 1, and eighteen others asked for it.

Less than 2 per cent of the persons tested were found to have a definitely positive reaction with both antigens, while more than 40 per cent showed suggestive reactions with one or the other antigen. Those persons giving a positive or suggestive reaction are being given physical examinations, and social workers are studying their family health histories for the purpose of confirming or excluding the presence of syphilis.

In conjunction with the Manhattan State Hospital, at Wards Island, the division of venereal diseases has employed two nurses to investigate the family histories of

those patients coming to the hospital with neuro-syphilis, paresis, or locomotor ataxia. A preliminary report of their work showed that, in seventy-five families investigated, fifty members other than the patients were found with positive Wassermans, making a total of 125 positives. The work will very likely be undertaken at other state hospitals.

CONTROLLING VENEREAL DISEASE

An important phase of the campaign for the control of venereal disease is the educational phase. If the public schools would take up the work of giving sane instruction in this question, a large part of the difficulty could be overcome, for it is through public opinion alone that the control of these diseases can be brought about. Dr. J. P. Bowdoin, of Atlanta, Ga., said in a recent address, "Members introduce, legislatures pass, governors approve, but the people either veto or enact a law. The state statutes, whose purpose is the eradication of venereal diseases, are now squarely before the people of this nation for enactment or veto. The only question is, do the people want to rid themselves and their posterity of this curse, or do they prefer to go back into the loathsome conditions of eastern empires, where prostitution is a legitimate vocation and venereal disease infection near 100 per cent."

"As physicians we answer this question without a dissenting voice, and as physicians we must not only educate, but as citizens we must mold public opinion and form a solid front for the enforcement of the law, governing the control of venereal diseases."

"This is the education that will win the fight; that is the enforcement of the law that will limit the spread of this terrible group of diseases that have cast their dark shadows over all the land, and are reaping a harvest in death, economic loss, mental anguish, blighted hopes, broken hearts, and saddened homes, that is scarcely equalled by all other diseases combined."

HOSPITAL TO FUNCTION AS CLEARING HOUSE FOR SOLDIERS AND SAILORS

The United States Public Health Service has opened its marine hospital in Chicago as a general clearing house for soldiers and sailors residing in the states of Illinois, Wisconsin, and Michigan, who are suffering from nervous and mental diseases. Dr. L. M. Wilbor, surgeon of the Public Health Service, is in charge.

Any member of the military or naval forces of the United States of these states who needs such attention may come or be sent to the hospital for observation and diagnosis, and will receive, in addition to the services of the group of able Public Health Service Surgeons who accompany Dr. Wilbor, the benefit of all the facilities for diagnosis afforded by the vast instrumental resources and expert neuropsychic talent of the great city. Later, the patient may be returned to his home with or without instructions to report from time to time to the hospital for further observation; or he may be transferred to such other hospital as may seem best suited to his condition. Before returning a patient to his home, his conditions and their probable effect upon him will be carefully considered.

Dr. Wilbor has a distinguished record, particularly in New York, where he served in both private and state hospitals, and in the well-known New York Neurological Institute. The hospital, which will start with 130 beds, has an allowance of \$85,000 for remodeling and other purposes.



The Special Size for Hospitals

One gallon instead of one pint of Jell-O is made up from the new Special Package of Jell-O, saving nine-tenths of the time required for opening and emptying the common small size.

This change eliminates the last remaining bit of real work connected with the preparation of Jell-O dishes.

Among the dishes which the nurse likes to prepare are the refreshing and attractive salads of which the foundation is Jell-O. These are made by adding to the Jell-O chopped celery and bits of fruit and nutmeats. They are moulded in teacups or little moulds and each is turned out on a lettuce leaf.

As Jell-O contains sugar and the other ingredients that would have to be added if plain gelatine² were used, there is a great saving of time, labor and cost, and the result is always satisfactory. The price of this special package has been materially reduced within the past month.

Jell-O is made in six pure fruit flavors: Strawberry, Raspberry, Lemon, Orange, Cherry, Chocolate.

The new Special Package for hospital use contains enough Jell-O to make four quarts of jelly as against one pint of the regular small size.

THE GENESEE PURE FOOD COMPANY
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Consult the 1920 Year Book for Catalog information.



HINTS TO HOSPITAL SUPERINTENDENTS

CUTTING DOWN WASTE MATERIAL

A booklet used during the war entitled, "Army Food—Kitchen Products and By-Products," contained so many pointers in kitchen economy for hospital executives that we are reprinting herewith certain extracts.

"Fats for cooking. Suet should be used for the best cooking purposes. Its most economical use is raw in suet pudding; but it can also be turned into drippings.

Excess fat from the carcass (butcher's fat) should be cut into small pieces or put through a meat grinder, rendered and clarified. It may be issued instead of butter.

Surplus fat removed before cooking (trimmings) should be rendered and clarified, for use in making cakes and biscuits.

Cracklings, the fibulous residue of rendered raw fat, should be boiled up with water, skimmed, and used in first-class cooking.

Skimmings, the grease skimmed off the surface of stews, stockpots, etc., should be clarified. If discolored it should be broken up, put into fresh water and reclarified. When clear it can be used for first-class cooking; if discolored and flavored, it is useful as second-class best brown drippings for frying.

Bacon fat left after frying bacon should be clarified and used for second-class brown drippings for frying. Fat lost in process of cooking when clarified makes excellent gravy.

One bullock yields an average of seventy to eighty pounds of bones, and of waste fat 100 to 120 pounds. One sheep yields eleven to fifteen pounds of bones and twenty to twenty-eight pounds of fat."

GETTING 100 PER CENT SERVICE FROM YOUR LIGHTING SYSTEM

During the winter months, the lighting expense of the institution is naturally heavy, and hospital superintendents should take every measure to guard against undue light consumption, and to see that the greatest possible lighting efficiency is secured.

It is common knowledge that incandescent lamps deteriorate, and as a result lighting efficiency is greatly reduced, and the current consumption is increased. This is particularly true of carbon lights, which use much greater current when old than when new. This deterioration can, as a rule, be easily detected by the eye without photometric apparatus, as the light has a yellowish cast, the surface of the globe becomes blackened or carries a dark deposit, while in some instances a deposit also occurs on the outside of the lamp bulb.

The manufacturers of the Mazda lamp claim an average life of one thousand hours' burning, and state that at the end of this period the lamp should be discarded, if the

greatest possible economy and efficiency is to be secured.

Another way in which lighting efficiency can be furthered is to inspect your lighting system carefully and see if lamps of proper size are being used. It will frequently be found that a lower candle power will give ample light for certain locations. In other words, the candle power of the electric light should be governed entirely by the conditions surrounding its use.

Another thing, be sure that your lighting fixtures are clean. This is no reflection on your housekeeper, because even in fixtures that appear clean there is frequently an accumulation of dust that greatly impairs the lighting efficiency. All lamps and reflectors should be regularly washed and cleaned. In the ordinary direct lighting reflector there is little opportunity for dirt to gather, and the lamp bulb will be the primary cause of light loss. In the case of the inverted unit, however, a thin layer of dust soon settles on the entire reflecting surface, as well as on the lamp, and this will reduce the lighting efficiency appreciably in a very short time.

Another cause for faulty illumination is the condition of walls and ceilings. This should be most carefully watched in rooms requiring brilliant illumination such as operating rooms, laboratories, etc. The paint and enamel gradually lose reflecting power, and many deficiencies in the lighting system may be due in part to the condition of the walls and ceiling.

PROTECTING THE FLOUR SUPPLY

Hospitals that carry any considerable quantity of flour in storage should exercise great care to see that it is properly protected against dampness. A good plan is to pile the surplus stock of flour on inch boards laid on two by fours over concrete, but never directly on the concrete. Another thing to guard against is excess heat or humidity, which is likely to cause caking or other deterioration. One of the best preventives of this is a free circulation of air which strongly counteracts extreme humidity or heat. As flour rapidly absorbs odors, care should be taken not to use tarred paper or other strongly smelling materials near the place where flour is stored. Care should also be exercised in the use of disinfectants on account of the effect they may have on the flour, either through their odor or through damaging the flour in other ways, as in the case of sulphur dioxide, which destroys the gluten in the flour. Proper care should also be taken to protect flour against rats, mice, and insects.

He who exhibits no faults is a fool or a hypocrite whom we should mistrust. There are faults so intimately connected with fine qualities that they indicate them, and we do well not to correct them.—Joubert.



HEADQUARTERS

Our facilities make us headquarters for the Endocrine Gland and Organotherapeutic products.

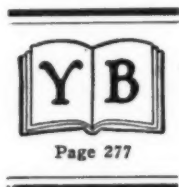
Pituitary Liquid
½ c. c. and 1
c. c. ampoules, 6
in box.

Pituitary powder
and tablets.
Anterior Pituitary
Powder and Tabs. Posterior
Pituitary Powder and
Tabs.

Corpus Luteum
(true) powder
and 2 and 5
grain Tabs, and
2 and 5 grain
capsules.

Pepsin, U. S. P.
scale, granular
and powder.

Pancreatin,
U. S. P. Powder.



ELIXIR ENZYMES is a palatable preparation of the proteolytic and curdling ferments that act in acid medium. It is recommended as an aid to digestion and as a gastric tonic generally.

Elixir of Enzymes is of special service in correcting faulty proteid metabolism which is one of the principal causes of autointoxication.

Elixir of Enzymes is an excellent adjuvant and vehicle for exhibiting iodids, bromids, salicylates and other drugs that disturb the digestive functions. One dram of Elixir Enzymes will carry 46 grains of potassium iodid or 45 grains of sodium salicylate or 17 grains of potassium bromid.

Elixir of Enzymes contains the curdling ferment and may be used for making junket or curds and whey. Add one teaspoonful of the Elixir to half pint of lukewarm milk, stir thoroughly and let stand till cool.

For minimizing the organic disturbances and eliminating the corrosive effect of potassium iodid on the mucous membrane of the stomach as well as disguising the taste, the following combination is recommended:

Potassium Iodid, 2 ounces.

Distilled water, enough to make two fluid ounces.

To exhibit, for instance, 20 grains of potassium iodid three times daily, use one teaspoonful of Elixir of Enzymes, one teaspoonful of the above solution to half pint of lukewarm milk; stir thoroughly and let stand until cool. Take one-third of this quantity as a dose. This junket should be made up fresh every morning.

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MEETINGS, CONVENTIONS AND CONFERENCES

AMERICAN HOSPITAL ASSOCIATION'S ROSTER OF OFFICERS AND COMMITTEES 1920-21

OFFICERS

Dr. Louis L. Baldwin, President
Dr. George O'Hanlon, President-elect

Dr. T. MacEachern, 1st Vice President
Dr. S. G. Davidson, 2nd Vice President
Dr. A. R. Warner, Executive Secretary

Miss Alice M. Gaggs, 3rd Vice President
Asa S. Bacon, Treasurer

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Dr. George O'Hanlon
Asa S. Bacon

Dr. Louis H. Burlingham
Rev. Maurice F. Griffin
Richard P. Borden

Dr. Robert J. Wilson
Miss Mary M. Riddle
H. E. Webster

1921 CONVENTION

September 12 to 16, inclusive, at the West Baden Springs Hotel, West Baden, Indiana.

1921 COMMITTEE APPOINTMENTS

Standing Committees

CONSTITUTION AND RULES

Mr. R. P. Borden, chairman, Union Hospital, Fall River, Mass.
Dr. R. B. Seem, director, Albert Merritt Billings Memorial Hospital, Chicago, Ill.
Dr. A. K. Haywood, superintendent, Montreal General Hospital, Montreal, Quebec.

NOMINATIONS

Dr. W. L. Babcock, chairman, superintendent, Grace Hospital, Detroit, Mich.
Mr. A. B. Tipping, superintendent, Touro Infirmary, New Orleans, La.
Miss Mary L. Keith, superintendent, Rochester General Hospital, Rochester, N. Y.

LEGISLATIVE

Mr. F. E. Chapman, chairman, superintendent, Mount Sinai Hospital, Cleveland, O.
Dr. R. G. Broderick, director of hospitals, Alameda County Hospital, San Leandro, Calif.
Mr. Pliny O. Clark, superintendent, Presbyterian Hospital, Denver, Colo.

MEMBERSHIP

Dr. C. W. Munger, chairman, superintendent, Columbia Hospital, Milwaukee, Wis.
Mr. Howard E. Bishop, superintendent, Robert Packer Hospital, Sayre, Pa.

Miss Myral M. Sutherland, superintendent, Mary McClellan Hospital, Cambridge, New York.

TIME AND PLACE

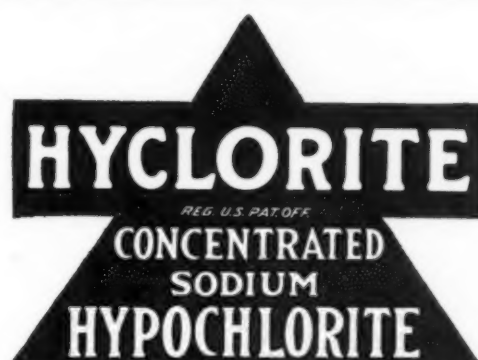
Dr. L. H. Burlingham, chairman, superintendent, Barnes Hospital, St. Louis, Mo.
Mr. H. E. Webster, superintendent, Royal Victoria Hospital, Montreal, Quebec.
Miss Mary M. Riddle, superintendent, Newton Hospital, Newton Lower Falls, Mass.

OUT-PATIENT

Mr. John E. Ransom, chairman, superintendent, Michael Reese Dispensary, Chicago, Ill. Term expires convention, 1922.
Dr. Robert J. Wilson, director, Health Department Hospitals, New York City. Term expires convention, 1921.
Dr. Alec H. Thompson, director, department of medical activities, American Social Hygiene Association, 105 W. 40th St., New York City.

STUDY OF STATE SUBSIDY FOR HOSPITALS

Mr. Howell Wright, chairman, executive secretary, Cleveland Hospital Council, Cleveland, Ohio.
Dr. Winford H. Smith, superintendent, Johns Hopkins Hospital, Baltimore, Md.
Mr. Daniel D. Test, superintendent, Pennsylvania Hospital, Philadelphia, Pa.



Hyclorite Has Solvent Action

DRS. Austin and Taylor of Rockefeller Institute, New York, writing in the Journal of Experimental Medicine on "The Solvent Action of Antiseptics on Necrotic Tissue," state that "the solvent action of Dakin's Solution is due primarily to its hypochlorite content" and that "Dichloramine T and Chloramine T do not exhibit solvent action."

The same authorities have shown conclusively that a Dakin Solution made by dissolving chloramine tablets or powder is not alkaline and has no solvent action on necrosed tissue.

Hyclorite being of standardized hypochlorite strength

and special alkalinity, ensures rapid solvent action. A Dakin's Solution can be made in one minute by merely adding the required amount of water to Hyclorite.

No waiting, filtering, titrating, or adding other chemicals, and the resulting solution is decidedly less irritating. Hyclorite has seven or eight times the strength of Dakin's Solution made in the usual way.

Hyclorite's concentration and preparation by special electro-chemic process assure its remarkable keeping qualities.

Hyclorite is Isotonic

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TRUSTEES OF AMERICAN HOSPITAL ASSOCIATION TRANSACT IMPORTANT BUSINESS

SEVEN of the nine trustees of the American Hospital Association were present at the quarterly meeting, held on January 12, at Chicago. The place for the 1921 conference was set for West Baden Springs Hotel, West Baden, Ind., on next September 12 to 16, inclusive. The trustees expressed the desire to continue the hotel type of convention as long as possible, although the growth of the association will soon make the auditorium type necessary.

A representative of the Surgeon General of the United States Public Health Service spoke on the question of the judicious opening of general hospitals to certain types of cases of pulmonary tuberculosis, and a resolution was passed recommending that whenever practicable and feasible, general hospitals open separate wards for these cases.

Michigan Association Becomes Section

The Michigan Hospital Association was accepted as a geographical section of the American Hospital Association, but on account of the fact that the constitution provides for geographical and departmental sections only, the application of the Protestant Hospital Association for recognition as a section was necessarily tabled for lack of authority to act. General interest in and approval of the work of the Protestant Hospital Association were expressed, however, and the desire to establish with it the same friendly relations that have been established with the Catholic Hospital Association. The basis of this understanding is the recognition of the fact that the Catholic Hospital Association is performing a distinct service in the development of the hospital field such as is in general the work of the American Hospital Association, but doing this particular work much more effectively than the American Hospital Association could do it.

Some definite plans for the publication of material developed by the service bureaus were approved, as was also the report of the committee which made the study of hospital social service.

Association Will Study Floors

A gift toward the expense of a study of hospital flooring was accepted with an expression of thanks, and Mr. F. E. Chapman, superintendent of Mount Sinai Hospital, Cleveland, O., was appointed chairman of the committee to carry on this work; other members will be added to the committee as the need is indicated. The meeting passed a resolution urging hospitals to secure more autopsies, and authorized two new sections to be developed as the interest in the membership in the association shall indicate, a section on hospital dietetics, and another on state or psychopathic hospitals. A resolution was passed urging the hospital associations of the various provinces in Canada to apply for recognition as geographical sections of the American Hospital Association, under the authorized terms and arrangements. The subjects for several future bulletins were approved, and the subject of the proposed increase in United States duty on several items of hospital supplies was discussed at length. The executive secretary was authorized to appear at the hearings on these bills held by the committee in Washington, and to take a definite position in the matter. A number

of suggestions as to the development of the organization of the association and its service to hospitals were discussed, and definite policies were determined.

MICHIGAN HOSPITAL ASSOCIATION MEETS AT GRAND RAPIDS

The Michigan Hospital Association met on December 7, and 8, at Grand Rapids. Among the ninety-seven workers who were there, hospitals in twenty-two cities were represented.

The first session was taken up by the reports of committees. The committee on legislation reported on proposed amendments to the nurses' bill, and the introduction of a bill trying to protect hospitals and sanatoriums in somewhat the same manner as hotels and boarding-houses are protected. Both of these matters the committee expects to call to the attention of the state legislature in January. The suggested amendments to the nurses' bill would establish a "trained attendant" who may be licensed by the state board on the completion of a nine months' course, six of which shall have been practical work. It was suggested that the educational requirement for registered nurses be raised to two years of high school work. Compulsory registration of nurses, which has not up to this time been required in Michigan, and annual registration, were also proposed.

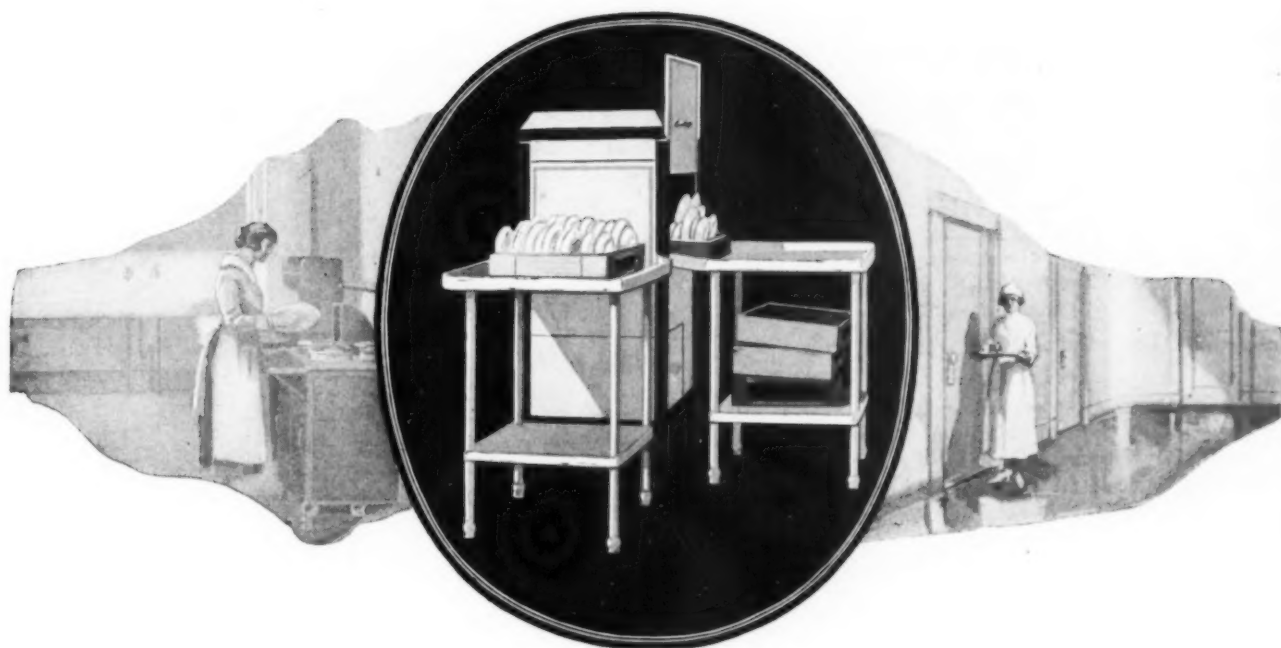
There was a report, by the committee on recruiting pupil nurses, of its work during the summer. As a result of the work of the committee, hospitals are in better shape than last year. A questionnaire which was presented to all the pupil nurses in Michigan, revealed the fact that practically 50 per cent of the pupils had taken up nursing because their attention had been called to it by graduate nurses, physicians, or friends. The other 50 per cent had taken it up through a natural desire for the work. It was found that two-thirds of the nurses had chosen their training school because it was near home, or on its reputation, and one-third were directed to the school by nurses or doctors. Less than one-third had visited the school before entering it.

At the second session, former United States Senator William Alden Smith called attention, in a short address, to the great work being done by hospitals, and suggested that people in connection with the work were usually too modest in presenting their cause to the public. Dr. Andrew R. Warner, executive secretary of the American Hospital Association, spoke on the desirability of the affiliation of state associations with the American Hospital Association.

John A. Lapp, editor of *Modern Medicine*, Chicago, talked on newer phases of health organizations. He emphasized the fact that there is not as much duplication in health activities as there is thought to be, but that the problem at the present time is to gather up the results of successful experiments in the different organizations, so that all organizations may profit by the experiences of each.

At the last session a paper was presented by Miss Harriet Leck, from the state department of health, Lansing, on the relation of Michigan hospitals to the public health nursing of the state.

Dr. Warren L. Babcock, superintendent of Grace Hospital, Detroit, conducted a round table, at which such



Crescent Electric Dish Washer

The machine you need

"Crescent Electric Dish Washers should appeal to every institution dealing with infectious disease," writes Dr. Glenford L. Bellis, Superintendent of Muirdale Sanatorium. "They have served our purpose satisfactorily and admirably. We have found them simple in operation and effective in results. Furthermore, *it combines the features of washing, rinsing and sterilizing* without additional labor on the part of the operator."

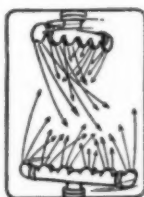
A Crescent for small diet kitchens

Crescent Model "M"—only two feet square—enables hospital authorities to equip small diet kitchens with a dish washer which cleans dishes as thoroughly as the larger Crescents for big kitchens.

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Dishes are placed in a wooden break-proof rack which is slid into the washer. There they remain motionless while whirling torrents of water under pressure from above and below the dishes, wash them. Every dish surface is cleansed instantly. Then follows a clean, scalding, sterilizing rinse. The dishes dry without handling.

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questions as the following were discussed: the policy of hospitals with regard to medical and surgical care of pupil nurses; the advisability of establishing pay clinics in connection with general hospitals; the relation of the amount of fire insurance policy to the amount of appraised value of the property; the type of worker to be used in hospital follow-up work; the charge per diem for compensation cases; the ethical forms of publicity for training schools to use; and, the proper visiting hour for hospitals.

The next meeting of the Association will be held at Ann Arbor on June 7, and 8.

WISCONSIN HOSPITAL ASSOCIATION JOINS NATIONAL BODY

The American Hospital Association, at a directors' meeting held at the time of its annual convention in Montreal, accepted the Wisconsin Hospital Association as one of its geographical sections. Since the annual meeting of the Wisconsin Hospital Association, September 16 and 17, there have been two meetings of its board of trustees at which plans have been outlined for increasing the membership of the Association. This work is to be done by the various officers and also by the trustees. The various districts of the state are represented in the board of trustees and each trustee will be responsible for obtaining a new member in his district. The next convention of the association will probably be held in the spring, in order not to conflict in any way with the meeting of the American Hospital Association.

AMERICAN SANATORIUM ASSOCIATION MEETS

The American Sanatorium Association held its sixteenth mid-winter meeting at the Monroe County Sanatorium, Rochester, N. Y., on December 11, 1920. Approximately seventy-five members from all parts of the country attended. The scientific discussion was on the present day status of the early diagnosis of tuberculosis, various phases being presented by distinguished speakers. This was followed by general discussion. The matters considered were nation wide follow-up by mail of ex-sanatorium patients, with the cooperation of the national association; an extending into the homes of post-sanatorium treatment; and the modification of the present classification of pulmonary tuberculosis by including x-ray findings.

SOUTHERN HOSPITAL ASSOCIATION ORGANIZED

On November 15, 1920, there was a meeting held to organize the Southern Hospital Association, which will be an auxiliary of the Southern Medical Association. The session was called at Louisville, Ky., with Dr. W. P. Harbin of Rome, Ga., acting as president. The question of organizing the association as an auxiliary, to function as a section of the medical association, was discussed, and it was the unanimous opinion of those present that there is a distinct need for a hospital association. The acting president was instructed to name a committee on constitution, by-laws, and permanent organization, to report at the next meeting one year hence. The temporary organization now functioning will continue until that time. The association then proceeded with a symposium on group medicine; papers were read by Dr. Stewart R. Roberts, Atlanta, Ga.; Dr. Benj. B. Steedly, Spartanburg, S. C., and Dr. M. B. Stokes, Houston, Texas. The question was then discussed by several other doctors. After

a paper by Dr. Tom A. Williams, Washington, D. C., on the management of certain types of nervous cases in general hospitals, the election of officers was held. Dr. W. P. Harbin, Rome, Ga., was elected president, Dr. Beverly R. Tucker, Richmond, Va., vice-president, and Dr. Paul V. Anderson, Richmond, Va. secretary.

AMERICAN CONFERENCE ON HOSPITAL SERVICE TO MEET EARLY IN MARCH

The Council on Medical Education and Hospitals, the Council on Health and Public Instruction of the American Medical Association, the Association of State Licensing Boards, the Association of American Medical Colleges, and the American Conference on Hospital Service will meet in conference in Chicago from March 7 to 10. Wednesday afternoon, March 9, will probably be given over to the American Conference on Hospital Service. The program will be published in the March issue.

DR. JOHN F. BRESNAHAN ASSUMES NEW POSITION

Dr. John F. Bresnahan, who has been associated with Dr. John G. Bowman in the hospital standardization work of the American College of Surgeons during the past year and a half, has been appointed superintendent of the Bridgeport Hospital, Bridgeport, Conn. Dr. Bresnahan was for several years one of the assistant superintendents of the Massachusetts General Hospital. During the later part of 1918 he was morale officer of the hospital at Camp Custer, and later was appointed morale officer of the entire camp. The Bridgeport Hospital is to be congratulated upon securing Dr. Bresnahan, who is a man of varied experience and wide knowledge of the hospital field.

HOSPITAL LIBRARY AND SERVICE BUREAU RECEIVES ATTRACTIVE GIFT

The Royal Victoria Hospital of Montreal recently presented the Hospital Library and Service Bureau with an attractive book, fifteen by twenty-four inches, bound in black leather, which contains the pictures and plans of the various buildings of this prominent hospital as well as interesting interior views and sample record forms.

ENLARGING MOUNT SINAI HOSPITAL

The new private pavilion for Mount Sinai Hospital, planned by Arnold W. Brunner, architect, and Dr. S. S. Goldwater, acting as consultant, is now under roof, and is being made ready for occupancy in the fall. This building covers a whole block front on Fifth Avenue, facing Central Park. Seventy-five private rooms out of a total of 131 have individual balconies with a new type of modified French door, designed to meet winter as well as summer requirements. A new children's pavilion and an auditorium are also approaching completion. With these additions, the Mount Sinai group consists of seventeen buildings, ranging in height from two to eight stories. The capacity of the enlarged hospital is 750 beds, making it the largest private general hospital in the United States.

The Achilleion palace at Corfu, formerly a possession of the ex-Emperor of Germany, has been converted into a hospital by the French and named the Tribondeau Hospital, in memory of a naval medical officer and bacteriologist who died of influenza in the epidemic of September, 1918.



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QUERIES AND ANSWERS

DIFFERENTIATION OF DUTIES IN THE TRAINING SCHOOL

To the Editor of THE MODERN HOSPITAL:

When a hospital has (1) a superintendent of the training school, (2) a theoretical instructor, and (3) a practical instructor, how should the work be divided between these three persons and what relationship should this training department have with the practical work of the hospital?

HEAD OF A CONNECTICUT HOSPITAL.

(1.) The superintendent of nurses is responsible for the general organization of the theoretical and practical training of student nurses, and for all details concerning their life and work in the hospital. She is also responsible for the nursing care of the patients, and the general management of the nursing service of the hospital. Head nurses, instructors, and all officers directly concerned with the nursing work of the hospital are under her direction, and she is responsible to the superintendent of the hospital for her department. In smaller institutions she may have charge also of some of the housekeeping departments, and may substitute for the hospital superintendent in his absence.

(2.) The theoretical instructor usually teaches anatomy, physiology, bacteriology, chemistry, and possibly also materia medica, hygiene, and other preparatory subjects. In some schools she follows certain of the doctors' lectures with quizzes. As a rule, twenty hours of actual teaching work, with the outside preparation involved, would be as much as any teacher could do thoroughly. This instructor rarely has any executive duties or any responsibility for the practical administration of the wards. She should, however, be free to come and go in the hospital, and to question the student nurses on anything connected with the subjects she teaches, always assuming that she does not interfere in any direct way with the regular work on the wards. She ought to keep in touch with what is being done in the hospital, in order to make her teaching more practical and effective. The theoretical instructor is usually responsible for making out class schedules and keeping certain class records, and in some cases she also takes over certain details about the arrangement for visiting lectures, etc.

(3.) The instructor of practical nursing teaches the students all their practical nursing procedures. This is usually done in the demonstration room, but she also follows them on the wards at least during the preliminary period, to see that they are carrying out the principles and methods which have been taught in the class room. The duties which are assigned to the probationers on the wards should be worked out between the practical instructor and the head nurse. The students should not be asked to do anything on the wards until they have been carefully taught by the instructor, and until the instruc-

tor has first seen them carry out the procedure satisfactorily. If the young pupil nurse is not doing good work, the head nurse should report the matter to the instructor who has this group in charge. It is, of course, essential that the head nurse and the practical instructor should work closely together; otherwise, there will be friction. The practical instructor should be considered as one of the supervisory staff, with special responsibility for the training of student nurses.

It is essential that the superintendent of the training school and her assistants should be on the wards constantly to oversee the work of the student nurses and others of the nursing department. There seems to be no reason why their duties should conflict with those of the administrative staff of the hospital, if both groups of workers have a pretty clear idea of their functions and are prepared to cooperate in working for the best interests of both the hospital and the nursing school.

LAUNDRY CHUTES BEING USED

To the Editor of THE MODERN HOSPITAL:

Are modern hospitals of today using the laundry chute? In our hospital the laundry chute does not go to the laundry, but instead goes to the utility room in the basement, and from there on the laundry cart, to the laundry.

ARCHITECT.

Sanitary laundry chutes are being used constantly in the very best hospitals. In very few cases does the laundry chute empty into the laundry, as this would be possible only where the laundry is located under the hospital building. As most laundries are, and should be, located in separate buildings, the laundry must be conveyed there by means of carts from the base of the chute.

There are two methods of using the chutes, each of which presupposes that the linen is marked by floors or wards. The first method is to throw the soiled linen directly into the chute making no count on the floor, but accepting the count of the laundry man when he empties the base of the chute. The second method, a little more systematic, is to assemble the soiled linens in the utility rooms, placing them in soiled linen hampers especially built for this purpose. At stated intervals the nurse in charge counts the linen, and the bag is then sent down the chute and soiled linen re-checked at the laundry.

There is no more reason why linen should be mixed up by use of the chute, than by any other method of handling soiled linen.

Build on, and make thy castles high and fair
Rising and reaching upwards to the skies;
Listen to the voices in the upper air,
Nor lose thy simple faith in mysteries.

—Longfellow.



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BOOK REVIEWS AND CURRENT HOSPITAL LITERATURE

THE EYESIGHT OF SCHOOL CHILDREN

Bulletin, 1919, No. 65, issued by the Bureau of Education, Department of the Interior. by J. H. Berkowitz.*

The Department of the Interior has recently issued a bulletin, by Mr. J. H. Berkowitz, on defective eyesight of school children. Though the scope of the survey has been wide, every phase of the problem has been considered with reference to the principle of practicability of result to the teacher, principal, nurse, school official, and health officer.

Originally the survey was made for the Bureau of Welfare of School Children, Department of Social Welfare, and the New York Association for Improving the Conditions of the Poor, and was an investigation of conditions in New York City. Later, at the suggestion of the United States Commissioner of Education, the investigations were extended so as to make the report national in scope.

Blackboards were found to be important factors in the production of eyestrain, for they are very often placed between windows or under windows, either of which is a serious strain on the eyes. Deterioration of blackboard surfaces is also an evil, for if the surface becomes streaked or chipped, the writing will be difficult to read. Whatever material is used for blackboards, the first requisite is that the surface be smooth, and of a dark gray tone bordering on black. Natural slate is considered by far the best material for school use.

A large proportion of eyestrain has been found to be due to the placing of desks and seats so that the writing on the blackboard cannot be seen without straining the eyes. Another condition which should be remedied is the poor position of the seats and desks in relation to each other. Bad posture and eventually bad eyesight will result from the desk being too high or too low, or at the wrong distance from the seat. The right distance is still a disputed question, but Kotelmann (*School Hygiene*, p. 141) says: "The chief thing is to have a minus distance, when the pupil is reading or writing." A minus distance is to have the desk edge overhang the seat edge.

In the last few years several organizations have used the illustrated chart as a means of education in matters of public health, and especially school hygiene. The National Education Association had a series of charts prepared on the subject of the conservation of vision. It was thought that, by placing these graphic illustrations of the problem and its solution within reach of school workers, a better understanding of school hygiene and the health needs of children might be brought about.

In several of the largest cities in the United States

the schools are equipped with special rooms for the medical director and the school nurse. All new school buildings in New York are planned so as to include such a room, and the dimensions and equipment which make them suitable for visual tests, as well as for other health work.

There is great need in the United States for better standardizing of regulations for the construction of school-houses. State laws on this question are few and most of them are very deficient. Only twenty states make any regulation concerning the lighting of the buildings. There is a striking difference among the provisions, showing a lack of standardization, and, too often, a lack of authoritative basis for these "legislative attempts."

THE DAWN OF MODERN MEDICINE

By Albert H. Buck, formerly Clinical Professor of Diseases of the Ear, Columbia University, New York; Consulting Aural Surgeon, New York Eye and Ear Infirmary. 288 pages.¹

"The Dawn of Modern Medicine," by Dr. Albert H. Buck, is a continuation of the author's earlier work, "The Growth of Medicine." This later book is "An account of the revival of the science and art of medicine which took place in Western Europe during the latter part of the eighteenth century and the first part of the nineteenth." This volume is the third work which has been published by the Yale University Press, on the Williams Memorial Publication Fund. This foundation was established June 15, 1916, by a gift made to Yale University by Dr. George C. F. Williams of Hartford, in memory of his father and grandfather who, like himself, were graduated from the Yale Medical School.

Dr. Buck says that in his book he has tried to follow the suggestion once made by the celebrated French naturalist, Cuvier, who said, "It is not through a perusal of the insufficient extracts that are commonly made from the published works of distinguished men, . . . that we derive the greatest pleasure, . . . but this desirable result is more likely to be obtained when we are made intimately acquainted with their individual traits of character, . . . given the opportunity of contemplating close at hand their distinct qualities, by one who is skilled in such portraiture." This, then, is Dr. Buck's aim.

He has subdivided his book according to the geographical districts treated, Northern and Central Germany, Austria, Italy, France, Switzerland, and England, and within these subdivisions each chapter deals either with distinguished men, or some epoch-making discovery in the science of medicine.

*Washington Government Printing Office, 1920.

¹Yale University Press, New Haven, 1920.

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A SHORT HISTORY OF NURSING

By Lavinia L. Dock, R.N., Secretary, International Council of Nurses, in Collaboration with Isabel Maitland Stewart, A.M., R.N., Assistant Professor Department of Nursing and Health, Teachers College, Columbia University, New York City. 392 pages.²

In "A Short History of Nursing," Miss Dock has tried to make a more workable history which can be more conveniently used for training schools than the larger work in four volumes by Miss Dock and Miss Nutting. Miss Dock has taken most of her material from this larger "History of Nursing," but she has added some of the more recent developments in the field which are not in the first work.

It is important that the student nurse study the history of her profession, if she is to have any perspective on her work, and if she is to give her best efforts to it. The author traces the development of nursing from that in the ancient world, through the dark period, which was lightened by the coming of Florence Nightingale, the founder of modern nursing, down to modern times, and the recent developments in the field both in America and other countries. Certain influences such as Christianity, and aristocratic, military, democratic, and secular tendencies are described. In the final chapter Miss Dock has tried to "introduce the young nurse to some of the fundamental principles of nursing ethics and to show how these principles have grown up out of the history of nursing."

PUBLIC HEALTH LABORATORY WORK

By Henry R. Kenwood, C.M.G., M.B., D.P.H., etc., Chadwick Professor of Hygiene and Public Health University of London; Medical Officer of Health and Public Analyst for the Metropolitan Borough of Stoke Newington. 420 pages.³

"Public Health Laboratory Work," the new book by Dr. Henry R. Kenwood, deals almost exclusively with the chemical branch of public health laboratory work. The increase in importance of bacteriology in this work makes it impossible to deal with both this and the chemical side in one volume, so Dr. Kenwood has made only occasional references to bacteriological matters, and a companion volume on microbiology is being prepared by Dr. Sheridan Delépine.

This book is not an attempt to describe a large number of methods to the same end, but rather to select the ones which experience has proved to be the most suitable to the needs of the public health worker.

The book is divided into six sections, dealing with the chemical, microscopical, and physical examination of water for public health purposes; sewage and sewage effluents; soil examination; air analysis; food examination; and the examination of disinfectants. The book is copiously illustrated.

A DIABETIC MANUAL

For the Mutual Use of Doctor and Patient. By Elliott P. Joslin, M.D., Assistant Professor of Medicine, Harvard Medical School; Consulting Physician, Boston City Hospital; Collaborator to the Nutrition Laboratory of the Carnegie Institution of Washington, in Boston; Formerly Lieutenant-Colonel, M. C., U. S. Army.⁴

As stated on the dedicatory page, the object of this book is "To Help Make the Home Safe for the Diabetic" and without doubt the author has done much toward the fulfillment of this object.

In the first chapter, Diabetes is discussed in such a

way as to give the intelligent patient and understanding of the disease and so far as is yet known, the causes and general principles to be observed in treatment. The responsibility of the patient for his condition is made clear but not in terms that lead to discouragement.

Dr. Joslin states that mental relaxation and physical exercise are important as well as dietetic treatment and one chapter is devoted to hygiene for the diabetic.

Most helpful information is given in composition of foods, body requirements, body weight and weight peculiarities, as well as directions for computation of diet, making urine tests, and other details of treatment. There are, also, tables of food materials, menus, and recipes with comments and suggestions which are good. Possible complications and other things to be considered in connection with the treatment of the disease are also given attention.

To the patient this book will be of value because of the information it gives in convenient form; it will aid the physician and the dietitian very much in their efforts to educate the patient and will also serve as an excellent guide; to the teacher of dietetics it will furnish reliable practical material for either class work or experimentation.

BOOKS RECEIVED

HYGIENE OF CUMMUNICABLE DISEASES. By Francis M. Munson, M.D., Lieutenant Medical Corps, U. S. Navy, retired; lecturer on hygiene and instructor in military surgery, School of Medicine, Georgetown Univ.; formerly instructor in medical zoology, Georgetown College; late brigade surgeon, and Provisional Brigade, U. S. Marines. Illustrated, pp. 793. Paul B. Hoeber, Pub., New York, 1920.

ARTERIOSCLEROSIS AND HYPERTENSION, with chapters on blood pressure. By Louis M. Warfield, A.B., M.D., (Johns Hopkins), F.A.C.P.; formerly professor of clinical medicine, Marquette Univ. of Medicine. pp. 265, 3rd ed., C. V. Mosby Co., St. Louis, 1920.

HANDBOOK OF DISEASES OF THE RECTUM. By Louis J. Hirschman, M.D., F.A.C.S., professor of proctology, Detroit College of Medicine. 3rd ed., revised and rewritten, C. V. Mosby Co., St. Louis, 1920.

FUNDAMENTALS OF HUMAN ANATOMY. By Marsh Pitzman, A.B., M.D., professor of anatomy, Dental Department of Washington Univ. pp. 356, C. V. Mosby Co., St. Louis, 1920.

EXOPHTHALMIC GOITER AND ITS NONSURGICAL TREATMENT. By Israel Bram, M.D., instructor in clinical medicine, Jefferson Medical College, Philadelphia, pp. 400, C. V. Mosby Co., St. Louis, 1920.

LECTURES ON MEDICINE TO NURSES. By Herbert E. Cuff, M.D., principal medical officer to the Metropolitan Asylums Board; late medical superintendent, North Eastern Fever Hospital, Tottenham, London. Illustrated, pp. 257, 7th ed., P. Blakiston's Son & Co., Philadelphia, 1920.

ELECTRO-THERAPY, Its Rationale and Indications. By J. Curtis Webb, M.D., late member of council Electro-Therapeutic Section, Royal Society of Medicine; late Major R.A.M.C. Specialist in Radiology and Electro-Therapeutics. pp. 90, P. Blakiston's Son & Co., Philadelphia, 1920.

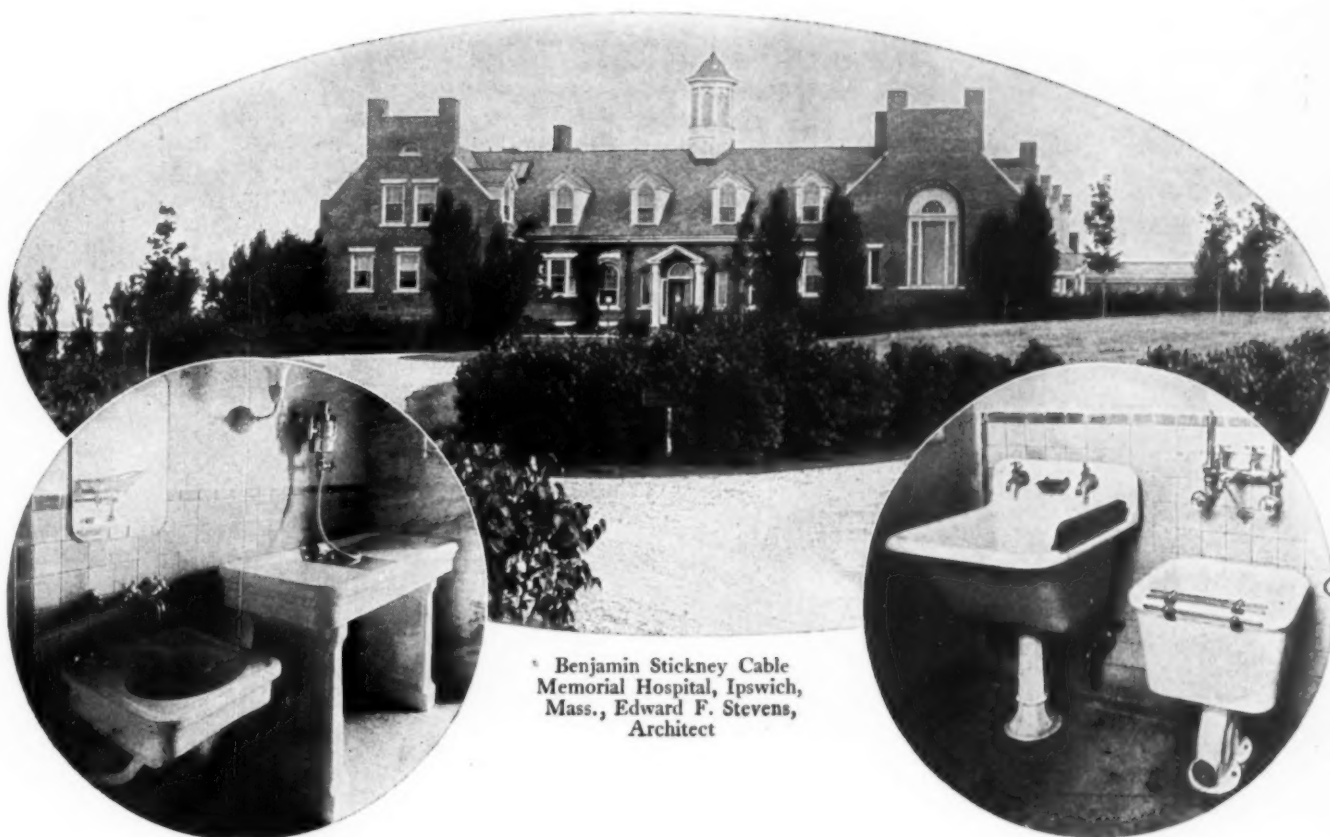
MASSAGE, Its Principles and Practice. By James B. Mennell, M.D., medical officer physico-therapeutic department, St. Thomas' Hospital; medical officer in charge of the massage department, Special Surgical Hospital, Shepard's Bush. Illustrated, pp. 535, P. Blakiston's Son & Co., Philadelphia, 1920.

At St. Mihiel, France, in memory of the first great American battle effort of the war, the junior section of the American Red Cross, cooperating with the French Government, will finance the erection and operation of a model hospital for children.

²G. P. Putnam's Sons, New York and London. The Knickerbocker Press, 1920.

³Paul B. Hoeber, New York City.

⁴Lea and Febiger, Philadelphia and New York, 1919.



* Benjamin Stickney Cable
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Mass., Edward F. Stevens,
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FOREIGN CORRESPONDENCE

SCARCITY OF NURSES IN GREAT BRITAIN

THERE is an almost lamentable scarcity of nurses in this country and it is becoming a grave problem. The large city hospitals, even, are feeling the lack of experienced nurses, while in the smaller institutions matters in this respect are more serious by far. Girls are not coming forward, as formerly, for training. It does not appear that the situation will improve. Several reasons are given for this state of affairs, but the two most obvious causes are the following:

The first is that the present age at which the girl is allowed to begin her training is too high. A number of the largest hospitals will not accept any woman for training until she has reached the age of twenty-three. It is true that if she wishes she can go to other institutions at an earlier age; but the time she spends in these will not count when her training in the big hospitals begins. The significance of this procedure is that if a woman decides to become a nurse, either she must go to an institution which is not recognized at the very time when she is most adaptable and full of enthusiasm, or otherwise she must wait until she is old enough. During this period of waiting her friends will probably be in good positions. The result is that most girls, when they have attained to the necessary age, are already making their way, and do not feel disposed to give up good paying jobs for the inadequate wages and doubtful comfort of a probationer's life.

The second reason is the unattractive circumstances of training in the form of inadequate pay and long hours of work. Sir Arthur Stanley, the head of the British Red Cross and treasurer of St. Thomas' Hospital, gave an interview recently to a representative of an influential London daily journal in which he said that it was clear that the pay of nurses had in the past been inadequate, and must be increased to meet the high cost of living. But while allowing that pay is inadequate, he thought that the question of hours was a much more difficult one. The case of a private duty nurse is illustrative. She might have to work at critical times during almost the entire twenty-four hours, and indeed in one sense the whole time she is with a case she is at work all the time. Yet if anything in the nature of an eight hour day were to be adopted for private duty nursing, this form of nursing would practically disappear altogether, as very few people could afford to have three nurses, the number that would be needed. The College of Nursing had a scheme under which a fifty-six hour week was possible, the arrangement of the hours being left to the nurse and her employer over a period of fourteen days. With regard to the hospital nurse, it was fully realized some little time ago that the hours of work were far too long, and most of the hospitals have taken steps to reduce

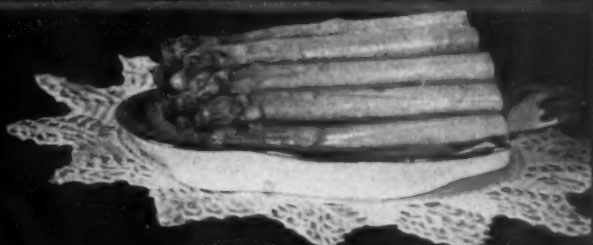
the hours. The great difficulty is that the working of shorter hours means that the hospital must find more nurses, and that in turn means that more accommodations have to be found. Nurses cannot be manufactured at short notice, and it is equally impossible at short notice to get the necessary accommodation for them. Moreover, it is a well known fact that the hospitals are going through a serious financial crisis, and the great burden of providing more nurse accommodation is being faced by most of them with considerable anxiety, but with equal determination to overcome it. Sir Arthur Stanley, however, believes that the real dearth of nurses is largely due to another cause. The training which the nurses receive at present is excellent but very narrow. After three or four years spent in being trained, the certificate which the nurse obtains qualifies her only for the actual nursing of the sick, and does not qualify her for the preventive side and for work on broader lines, such as that of the public health service.

Education Should Be on Broader Lines

It may be said in this connection that the College of Nursing has already approached the Ministry of Education on this latter subject, and hopes to bring forward a scheme that may be adopted by the General Nursing Council and the public departments concerned. It is also hoped that in the near future all the technical and advisory positions on the Ministry of Health will be filled by nurses who have had actual experience in hospitals, private duty nursing, and social welfare centers.

It appears that in this country the methods of medical practice are undergoing a change. The medical treatment of the future, it seems, will be more in the nature of preventive than remedial or curative treatment. In any event, it is certain that preventive treatment will be practiced on a larger scale than ever before. This being so, it is obvious that nurses should be trained in the principles and practice of preventive medicine as well as for nursing those suffering from disease and injuries. Nurses are urgently required for maternity cases, and with reference to this subject it is interesting to note that the policy of the Ministry of Health is to encourage local authorities as much as possible to provide accommodation for maternity cases. The housing shortage and consequent overcrowding has emphasized the need for homes for normal confinements as well as hospitals for complicated cases. Incidentally, it may be mentioned that the Town Council of Bradford was the first local authority to establish a municipal maternity hospital. This was established in 1915, and since that date forty-five maternity homes and hospitals have been started, the majority by local authorities, and the remainder by voluntary bodies working in cooperation with local authorities carrying out maternity and child welfare schemes.

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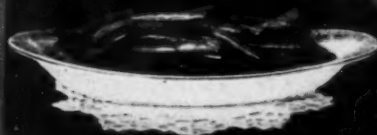
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Page 413



Small Sifted Peas



Loganberries



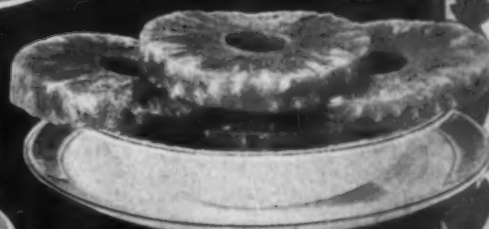
Yellow Cling Peaches



Bartlett Pears



Golden Apricots



Sliced Pineapple

RATE AIDED HOSPITALS

A NEW departure has been made, so far as the management of British hospitals is concerned. In the recent Ministry of Health Bill presented before the House of Commons a few days ago by the Minister of Health, Dr. Addison, authority is given to County Councils and County Borough Councils to maintain, or rather to contribute to the maintenance of, hospitals out of the rates. This departure from the point of view of long recognized and established practice is profound; but the critical situation in which the voluntary hospitals found themselves called for some such aid. It may help, too, to solve the hospital problem. Of course not many years ago a proposal of this kind would have met with the stoutest opposition. The British are conservative by tradition and the voluntary hospital system has been a source of pride to the nation. In the past it has answered its purpose well; also it goes without saying that the principle of voluntary support of hospitals was and is noble and generous. Doubtless it has been in many respects a blessing to the patients and especially to the poorer members of the community, in whose behalf indeed such institutions were primarily and solely intended.

But of late, and particularly since the beginning of the war, everything has been turned upside down. Hospitals now have more work to do by far; their incomes have not increased; and their expenses have been enormously augmented. As a matter of fact, something must be done to relieve their necessities, and done quickly, or many of them, perhaps the majority, will have to close their doors. Also the functions of a hospital are much wider than formerly, and the middle classes, the new poor, must be provided with facilities for proper medical and surgical treatment which up to the present time have been lacking. However, this phase of the question has been adequately discussed in previous letters; and it remains an incontrovertible fact that a change of the present system must be instituted. When all has been said that can be said on the subject, it is obvious that the supreme consideration must be the efficiency of the hospitals themselves, which have for some time past been living from hand to mouth, and greatly hampered in the efficiency of their service by their poverty, and by the intolerable strain placed upon the hospital authorities in the endeavour to raise sufficient money simply to keep going. There seems, then, to be no valid, or at any rate no insuperable, reason why hospitals should not be partly rate aided, nor also why a partial pay system should not be introduced.

Before dealing with these aspects of the matter it will be pertinent to consider the bill. The miscellaneous part of the bill, then, treats of two questions of the first importance to the public. The first is the regulation of the conditions under which the hospitals of the country can be maintained; and the second is the machinery under which the subjects of incipient mental disorder can be received into institutional shelter. Only the first of these will be discussed here.

The basic design of the measure is not to supplant the voluntary hospitals by placing upon the County Councils the responsibility of maintaining institutions for the treatment of disease. The idea, I conceive, is to endeavor to better the health service of the country in such a way that the voluntary hospitals shall be enabled to play a fuller part, unhampered by perpetual penury. It is intended, or hoped, that the measure about to become law will provide powers under which the pecuniary plight of the voluntary hospitals may be met. It is stated in some

influential quarters that the voluntary system has broken down, and is, therefore, doomed to be wholly replaced by a system of state or rate contributions. This statement is not borne out by facts. On the other hand, it is admitted that the system requires a great deal more support, both on old lines and on new. That is to say, the deficits, as a result of working the hospitals on a voluntary system, have not been so gravely serious as to make the placing of the whole of the hospitals on the rates a necessary procedure. Still the general view is, and this was manifested at the discussion of the subject at the recent meeting of the British Medical Association, that steps to remedy the existing state of affairs must be taken at once.

It is interesting to notice that the system of pay wards, which has been largely ignored when debating the question of how best to establish the hospitals on an efficient and stable basis, is not only beginning to receive attention but is being put into practice in many of the institutions for the treatment of the sick and injured. The largest hospital in Great Britain, the London Hospital in the east end of the metropolis, is a conspicuous case in point. The ideal hospital was sketched in the imagination by some of the speakers at the sociological section of the British Medical Association meeting in Cambridge, and was somewhat in this wise: It should be one having wards for those who need the highly skilled attentions of great specialists, yet are quite unable to pay for such service. For the maintenance of wards of this kind, the health authorities would be responsible. Also there should be wards for those able to pay their bare actual cost to the institutions. For these individuals open wards would be provided. In addition there should be cubicle wards and private rooms, in which patients able to afford it would secure the advantage of privacy and the attendance of their own medical men. It certainly seems that such a scheme would place the hospitals on a sound economic basis, and leave the private nursing home, with its extravagant charges, for those able to afford such service.

It is to be hoped that the bill may assist in securing these reforms, which would constitute a long step in the direction of, in any event, greatly relieving a pressing and, in fact, impossible situation. As long as there are free beds for the poor, there would appear to be no reasonable objection to a development of "paying wards." It is only fair that the middle classes, on whom will rest a considerable part of the burden of supporting the hospitals out of the rates, should have at least a chance, not now possessed by them, of receiving some benefit from the institutions which they largely maintain.

HOSPITAL BUILT OVER NIGHT

The Seneca Falls Chapter of the Red Cross had a chance to demonstrate how a fully equipped hospital could be built over night. Last fall a serious outbreak of typhoid fever occurred, and was assuming grave proportions when the Red Cross took charge of the situation. Within twenty-four hours an emergency hospital was established, with a staff of fifteen trained nurses and equipment for fifty patients. The hospital was in use from September 7 to October 8. During this time thirty-four patients were admitted, three of whom died; 467 typhoid calls, and 413 home inspections were made. Volunteer workers, fifteen in number, drove cars, and twenty did sewing work. Ambulance service, ice, ice cream for patients, and lunches for night nurses were among the donations which were received.